

**U.S. ARMY CORPS OF ENGINEERS
CIVIL WORKS PROGRAM**

**CONGRESSIONAL SUBMISSION
FISCAL YEAR 2005**

SOUTHWESTERN DIVISION

**Budgetary information will not be released
outside the Department of the Army until
2 February 2004**

Justification of Estimate for Civil Functions Activities
Department of the Army, Corps of Engineers
Fiscal Year 2005

SOUTHWESTERN DIVISION

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SUMMARY, SOUTHWESTERN DIVISION

	<u>FY 2004 Allocation</u>	<u>FY 2005 Request</u>	<u>Increase or Decrease</u>
<u>General Investigations</u>			
Surveys	\$ 5,952,000	\$ 9,226,000	+ 3,274,000
Preconstruction Engineering and Design	1,901,000	2,755,000	+ 854,000
Subtotal General Investigations	(7,853,000)	(11,981,000)	+ 4,128,000
<u>Construction, General</u>			
Construction	63,213,000	65,790,000	+ 2,577,000
Major Rehabilitation	1,931,000	6,750,000	+ 4,819,000
Dam Safety Assurance	7,263,000	8,296,000	+ 1,033,000
Subtotal Construction, General	(72,407,000)	(80,836,000)	+ 8,429,000
<u>Operation and Maintenance</u>			
Subtotal Operation and Maintenance	250,889,000	274,866,000	+ 23,977,000
	=====	=====	=====
GRAND TOTAL, SOUTHWESTERN DIVISION	\$ 331,149,000	\$ 367,683,000	+ \$ 36,534,000

APPROPRIATION TITLE: General Investigations, Fiscal Year 2005

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2004	Allocation FY 2004	Tentative Allocation FY 2005	Additional To Complete After FY 2005
	\$	\$	\$	\$	\$

1. SURVEYS - NEW

a. Navigation Studies: None.

b. Flood Damage Prevention Studies: None.

c. Shoreline Protection Studies: None.

d. Special Studies: The amount of \$177,000 is requested in Fiscal Year 2005 for continuation of one study.

Oklahoma

Miami and Vicinity	1,070,000	686,000	151,000	177,000	56,000
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The City of Miami, Oklahoma is located in Ottawa County in the Grand (Neosho) River Basin. Ottawa county is in the northeast corner of Oklahoma and borders Kansas and Missouri. The Grand (Neosho) River and Tar Creek, an uncontrolled tributary, causes frequent flood damages to the communities of Commerce, Picher, and Miami, Oklahoma. Recent major flooding occurred in October 1986, March 1990, June 1990, July 1992, December 1992, May 1993, September 1993, April and May 1994, and June 1995. A reconnaissance report for Miami, Oklahoma, and Vicinity, completed in 1989, identified a Federal interest in flood damage prevention measures for Miami and other areas of Ottawa County. However, a cost-sharing sponsor for feasibility studies could not be identified and the study was placed in inactive status. In addition to flooding, the communities also have problems resulting from mining activities, which peaked during the years 1907 through 1946. The last mining company closed down in 1970. The abandoned mines flooded and in 1979 metals-laden water began discharging to surface streams in the Tar Creek watershed. Heavy metals, including lead and other pollutants, contaminate floodwaters and have created losses in terrestrial and aquatic habitat, and are the cause of an ongoing human health risk. A 40 square mile site was added to the first National Priorities List (NPL) when Congress created the Superfund program in 1983, and the Environmental Protection Agency (EPA) remediation efforts soon followed. The State of Oklahoma formed the Tar Creek Superfund Task Force in January 2000 to bring all Federal Agencies involved in the Basin together to develop a comprehensive plan to address all water resources issues in the Basin. To provide the State of Oklahoma with an optional process to consider, the State requested the Corps of Engineers identify a strategy that would lead to the identification and implementation of a comprehensive plan for the study area.

The reconnaissance study will evaluate water resource problems in the Miami, Oklahoma and Ottawa County vicinity and identify the Federal interest in potential solutions, including ecosystem restoration measures. It will include development

APPROPRIATION TITLE: General Investigations, Fiscal Year 2005

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2004	Allocation FY 2004	Tentative Allocation FY 2005	Additional To Complete After FY 2005
	\$	\$	\$	\$	\$

Oklahoma (continued)

Miami and Vicinity (continued)

of a Watershed Management Plan that will identify a comprehensive combination of recommended actions to reduce flooding and restore the watershed ecosystem to an acceptable condition. The study will be coordinated closely with on-going and planned EPA initiatives, and incorporate a team of multi-Federal, Tribal, State, local community, and other stakeholders. Study alternatives could include structural and non-structural flood damage reduction measures, creation of riverine corridors for habitat and flood storage, development of native grasslands and wetlands to improve ecosystem habitat and other measures to enhance the quality and availability of habitat and reduce flood damages. The proposed study is supported by the State of Oklahoma, which would act as the local sponsor for the feasibility phase of the study.

Fiscal Year 2004 funds are being used to continue the reconnaissance phase of the study to formulate a preliminary Watershed Management Plan for the Tar Creek and Spring River watersheds. Funds requested for Fiscal Year 2005 will be used to continue the reconnaissance phase. The completion date for the reconnaissance phase of the study is to be determined.

e. Comprehensive Studies: None.

TOTAL SURVEYS - NEW	1,070,000	686,000	151,000	177,000	56,000
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APPROPRIATION TITLE: General Investigations, Fiscal Year 2005

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2004	Allocation FY 2004	Tentative Allocation FY 2005	Additional To Complete After FY 2005
	\$	\$	\$	\$	\$

2. SURVEYS - CONTINUING

a. Navigation Studies: The amount of \$2,575,000 is requested in Fiscal Year 2005 for continuation of seven studies.

Arkansas

Arkansas River Navigation Study	7,550,000	5,517,000	780,000	500,000	753,000
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The study area consists of the entire McClellan-Kerr Arkansas River Navigation System in Arkansas and Oklahoma. During the reconnaissance phase studies, representatives from the towing industry expressed concerns regarding the impacts of high flood flows on the system. Users (barge tow operators) have been experiencing delays in navigation due to low water conditions at the lower end of the system, and high flows resulting from flood conditions on the upper end of the system. Montgomery Point Lock and Dam is currently being constructed in the White River Entrance Channel to alleviate the low water problem at the entrance of the system. When flows reach 60,000 cubic feet per second at Van Buren, Arkansas, barge tow operators are forced to restrict navigation during these high-flow periods. Floods have impacted navigation interests by restricting navigation from one to two months until velocity of the river slowed enough that barges could safely continue. The first phase of this study investigated flow management strategies to improve the overall economic benefits for navigation on the system by reducing the impacts of high flows from the upper reaches of the Arkansas River watershed. It appears that by changing the flow management plan, we can gain \$6,600,000 in annual navigation benefits. The second phase of the study investigates deepening of the navigation system over the entire length of the system and providing passing lanes on the Verdigris River in Oklahoma. Section 136 of the FY 2004 Energy and Water Development Appropriation Act authorized a project depth of 12 feet.

Fiscal Year 2004 funds are being used to continue the feasibility phase of the study. Feasibility study activities will include continuing the phase I portion of the study that addresses system operation to increase the number of days for navigation on the system, and to continue studies to address deepening of Arkansas River that will determine the most economical plan consistent with the authorized 12 foot channel project depth. Fiscal Year 2005 funds will be used to continue the feasibility phase of the study. The McClellan-Kerr Arkansas River Navigation System is part of the Inland Waterway System. Construction will be cost shared 50 - 50 with the Inland Waterway Trust Fund. Since the project is part of the Inland Waterway System, the feasibility study is being accomplished at 100 percent Federal expense.

The completion date for the Phase I of the study is to be determined. The completion date for the Phase II and the overall feasibility study is to be determined.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2005

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2004	Allocation FY 2004	Tentative Allocation FY 2005	Additional To Complete After FY 2005
	\$	\$	\$	\$	\$

Texas

Brazos Island Harbor	2,600,000	9,000	0	500,000	2,091,000
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The Port of Brownsville is located on the south Texas coast near the US-Mexican border. The existing channel is 42 feet Deep (44 in the entrance channel), 250-325 feet wide, and over 18 miles long. The most recent deepening was authorized by the Water Resources Development Act of 1986. Project construction was completed in 1996. The proposed modification calls for deepening the entrance and jetty channel (2 miles) to 55 feet, deepen the lower 9 miles of main channel to -55 feet and deepen the upper 7 miles of main channel and turning basin to -45 feet.

Fiscal Year 2004 funds are being used to complete the reconnaissance phase of the study, and continue into the feasibility phase of the study. Fiscal Year 2005 funds will be used to continue the feasibility study. The preliminary estimated cost of the feasibility phase is \$5,000,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests.

A summary of the study cost is as follows:

Total Estimated Study Cost	\$5,100,000
Reconnaissance Phase (Federal)	\$ 100,000
Feasibility Phase (Federal)	\$2,500,000
Feasibility Phase (non-Federal)	\$2,500,000

The reconnaissance report is scheduled to be completed in August 2004. When the reconnaissance report is certified to be in accordance with policy, Fiscal Year 2005 funds will be used to continue the feasibility phase of the study. The reconnaissance phase is scheduled to be completed in September 2004. The completion date for the feasibility phase of the study is to be determined.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2005

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2004	Allocation FY 2004	Tentative Allocation FY 2005	Additional To Complete After FY 2005
	\$	\$	\$	\$	\$

Texas (continued)

Freeport Harbor	2,796,000	255,000	163,000	300,000	2,078,000
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The Freeport Harbor project is located along the mid to upper Texas coast, and is formed by the improvement of the Brazos River, Texas, from the mouth about 6 miles upstream to Freeport, Texas. It provides for a 47 foot deep, 400 foot wide entrance channel; 45 foot deep, 400 foot wide main channel; 45 foot wide, 750 foot diameter turning basin; 36 foot deep, 200 foot wide Brazos River Harbor channel; and 36 foot deep, 200 foot wide Brazos River Harbor turning basin. The local sponsor, the Brazos River Harbor Navigation District, is interested in examining the feasibility of improvements to the existing deep draft navigation channel and to determine the Federal interest in expanding the reach of the navigation channel to the Stauffer Channel and turning basin. The channel carries traffic that could be accommodated much more efficiently with a deeper channel. Many of the vessels that currently serve the chemical and oil industry in the area are light-loaded to enable them to operate in the existing channel resulting in delays. The Brazos River Harbor Navigation District has expressed intent to share equally in the feasibility phase cost that may follow the reconnaissance study.

Fiscal Year 2004 funds are being used to continue feasibility phase of the study. Fiscal Year 2005 funds will be used to continue feasibility phase studies. The preliminary estimated cost of the feasibility phase is \$5,342,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of the study cost is as follows:

Total Estimated Study Cost	\$ 5,467,000
Reconnaissance Phase (Federal)	\$ 125,000
Feasibility Phase (Federal)	\$ 2,671,000
Feasibility Phase (Non-Federal)	\$ 2,671,000

The reconnaissance phase was completed in March 2003. The completion date for the feasibility phase of the study is to be determined.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2005

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2004	Allocation FY 2004	Tentative Allocation FY 2005	Additional To Complete After FY 2005
	\$	\$	\$	\$	\$

Texas (continued)

Gulf Intracoastal Waterway - High Island Realignment	1,600,000	36,000	130,000	275,000	1,159,000
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The study area includes approximately 85 miles of the Gulf Intracoastal Waterway (GIWW) in Galveston and Brazoria Counties, from High Island, Texas, to the Brazos River. Tonnage transported along this section of the GIWW totaled nearly 50 million tons in 1994, with petrochemicals as the major commodity shipped. Some of the problems identified by users along this reach include difficulties negotiating the two 90-degree bends west of the Highway 124 bridge at High Island causing steerage problems for tows, making it difficult for even one way traffic; high shoaling rates and associated transit delays at Rollover Pass; the area at Sievers Cove experiences periods of high wind and current causing navigation problems due to the limited clearance between the GIWW and placement area #41, limiting the barges ability to compensate for the wind and current; and problems arise at the Texas City Channel (west wye) due to width restrictions and defective channel markers. Waterway users often continue to the intersections of the Texas City Channel and the GIWW before turning towards Texas City creating an unsafe condition due to currents as tows maneuver a 120 degree turn into a congested area used by ocean-going, deep draft vessels; the cut through Pelican Island provides the last protected area for eastbound traffic before crossing the Galveston causeway. Tows often stop during fast moving tides and high winds, causing congestion at this mooring facility as vessels wait for safe passage through the Galveston causeway. Additionally moored barges often extend out into the channel making passing through the area difficult requiring extreme care. Additional moorings are needed west of the Galveston causeway, as during periods of high winds, tows must push onto the bank in the sheltered area near Greens Lake and wait, sometimes for several days. The four miles between Cow and Halls bayous are areas of serious erosion where shoaling often reduces the channel width, limiting traffic to one way. The problem is compounded by cross currents.

Investigations to identify potential solutions to resolve the navigation issues along this reach of the GIWW have been divided into two interim feasibility studies. The first study is the GIWW - High Island to Brazos River, Texas study. The study addressed potential improvements to the waterway between Rollover Pass and West Bay. The GIWW - High Island to Brazos River Interim Feasibility was completed in July 2003. The second interim study, the GIWW - High Island to Brazos River Realignment Interim Feasibility, will include evaluation of navigation improvements in negotiating two 90-degree bends near High Island; difficulties negotiating a double "S" curve near Freeport; difficulties negotiating the intersection with the Chocolate Bayou Channel; and developing long range disposal plans.

The State of Texas is the non-Federal sponsor of the GIWW and continues to maintain a high interest in the waterway because of their responsibility to provide dredged material disposal areas. The State's interest is evident through monthly meetings of the State-chaired Gulf Intracoastal Waterway Advisory Committee. The GIWW is designated as part of the Nation's Inland Waterway System, and qualifies for 50-50 cost sharing from the Inland Waterways Trust Fund for construction of

APPROPRIATION TITLE: General Investigations, Fiscal Year 2005

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2004	Allocation FY 2004	Tentative Allocation FY 2005	Additional To Complete After FY 2005
	\$	\$	\$	\$	\$

Texas (continued)

Gulf Intracoastal Waterway - High
Island Realignment (continued)

navigation improvements. An initial appraisal of the entire 423-mile Texas Section of the GIWW was completed in November 1989. The reconnaissance study, completed in February 1995, concluded that modifications to the existing GIWW were economically feasible from reduction in delay benefits.

The Feasibility Study is 100 percent Federally funded. Fiscal Year 2004 funds will be used to initiate the interim feasibility study. The GIWW - High Island to Brazos River Realignment Interim Feasibility study completion date is being determined.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2005

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2004	Allocation FY 2004	Tentative Allocation FY 2005	Additional To Complete After FY 2005
	\$	\$	\$	\$	\$

Texas (continued)

Gulf Intracoastal Waterway - Modifications	10,790,000	796,000	228,000	350,000	9,416,000
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The study area encompasses two locations on the Gulf Intracoastal Waterway (GIWW) along the Texas coast. One, the Brazos River Floodgates, is located approximately 7 miles southwest of Freeport, Texas, at the intersection of the Brazos River and the GIWW in Brazoria County. The other, the Colorado River Locks, is located approximately 45 miles southwest of Freeport, Texas, at the intersection of the Colorado River and the GIWW in Matagorda County. Both projects improve navigational safety by controlling traffic flow and currents at these dangerous intersections. Both also serve to control sand and silt deposition at the intersection of the GIWW with the respective rivers. As sediment control structures, they reduce maintenance dredging costs by decreasing the trapping effects of the intersection. The Colorado River Locks have an additional purpose to raise the navigation traffic from the GIWW to the level of the river during flood stages for crossing the river and lowering the traffic to the level of the GIWW after crossing. Delay costs are estimated to exceed \$1 million annually at each location. In addition, the 75-foot gated thruway is too narrow to accommodate the new modern wider barges posing a major safety threat. The crossing was designed when barges were carried astern on a towline rather than the current practice of pushing a string of barges, making navigation of the crossing more difficult. Many tows have to "trip" or break down and moor their barges while taking one barge across at a time, causing delays, particularly during high river stages. Currently, 17 to 25 million tons of commerce pass through these facilities each year. The Gulf Intracoastal Canal Association (GICA) and Texas Waterway Operators Association (TWOA) representing the GIWW users are very interested in improving navigation at these locations. The study objective is to formulate alternative plans that would reduce the navigation difficulties at the crossings, thus reducing the number of accidents, the resulting excessive damages to the facilities and barges, and traffic delays. Potential solutions for minimizing navigation delays and safety concerns include realigning the approaches to the crossings or increasing the width of the gates. The State of Texas, Texas Department of Transportation (TXDOT) is the non-Federal sponsor for this project. Although this study is fully Federally funded, construction of any recommended projects will be cost-shared with the Inland Waterways Trust Fund.

Fiscal Year 2004 funds are being used to continue Feasibility Phase studies. Fiscal Year 2005 funds will be used to continue Feasibility Phase studies for the Colorado River Locks including socio-economic analysis and environmental analysis. The scheduled completion date for the Colorado River Locks interim feasibility study is to be determined. The scheduled completion date for the Brazos River Floodgates interim feasibility study is to be determined.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2005

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2004	Allocation FY 2004	Tentative Allocation FY 2005	Additional To Complete After FY 2005
	\$	\$	\$	\$	\$

Texas (continued)

Matagorda Ship Channel	3,650,000	653,000	228,000	300,000	2,469,000
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The existing project is located 80 miles northeast of Corpus Christi and provides for an outer bar and jetty channel 38 feet deep, 300 feet wide and about 4 miles long from the Gulf of Mexico through a man-made cut across Matagorda Peninsula; an inner channel 36 feet deep, 200 feet wide and about 22 miles long across Matagorda and Lavaca Bays to Point Comfort; a Turning Basin at Point Comfort 36 feet deep and 1000 feet square; and dual jetties at the entrance from the Gulf of Mexico. The jetties were constructed in 1962 to provide reliable and safe navigation on the waterway as it passes through the Matagorda Peninsula to the local ports. The project also includes a shallow draft channel, which connects to the deep draft channel and extends to Port Lavaca, Texas. The existing project users have requested additional depths. The Matagorda Ship Channel (MSC) carries approximately 5.7 million tons of commerce per year. Immediate emphasis must be placed on the entrance to the Matagorda Ship Channel. Prior to construction of the MSC jetties in 1962, vessels had to navigate through the natural inlet called Pass Cavallo. Attempts to maintain a navigation channel in the large inlet were not successful because of the shifting natural channels and difficult sea conditions on the complex entrance bar. In addition, Pass Cavallo was too large to construct jetties. Safety issues were also arising due to the requirements for deep draft vessels having to transit across the Gulf Intracoastal Waterway (GIWW) to access the deep draft harbor facilities. In 1962, it was more economical to make a new cut in the peninsula, which brought the Matagorda Ship Channel to the center of the Bay and away from the GIWW entrance to Port O'Connor. The jetties were required to stabilize the location and dimensions of the entrance channel and to provide protection from waves until deeper water was reached. The natural closing of the Pass Cavallo Inlet along with Matagorda Bay currents has increased velocities through the jetties causing severe erosion of the Bay bottom and jeopardizing vessels that have to traverse the navigation channel opening between the entrance Jetties into Matagorda Bay. Surveys have indicated depths that exceed 100 feet in the proximity of the Jetties. The existing conditions pose an immediate danger as natural occurrences such as tropical storm-related winds and tides may cause a collapse of some portions of the MSC jetty denying access to local ports. This would result in a loss of benefits of approximately \$8,000,000 per year. The cost of removal and reconstruction of failed jetties would be much higher than a planned relocation of one of the jetties to reduce the strong current. The reconnaissance report, completed in 1990, identified several project improvements to be in the Federal interest, including channel deepening and widening, and jetty improvements. The report recommending further study for deepening the channel was certified to be in accord with policy in August 1990.

In May 2000, an initial appraisal was completed using Operation and Maintenance, General funds to evaluate the Federal interest in pursuing a solution to the jetty problems. The Sponsor for the project is the Port Lavaca/Point Comfort Calhoun County Navigation District. They have indicated their intent to share equally in the feasibility phase costs.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2005

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2004	Allocation FY 2004	Tentative Allocation FY 2005	Additional To Complete After FY 2005
	\$	\$	\$	\$	\$

Texas (continued)

Matagorda Ship Channel (continued)

Fiscal Year 2004 funds are being used to complete the reconnaissance study in March 2004. If the reconnaissance report is certified to be in accordance with policy, Fiscal Year 2004 funds will be used to initiate the feasibility phase of the study. Fiscal Year 2005 funds will be used to continue the feasibility phase of the study. The preliminary estimated cost of the Feasibility Phase is \$6,500,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests.

A summary of the study cost sharing is as follows:

Total Estimated Study Cost	\$ 6,900,000
Reconnaissance Phase (Federal)	\$ 400,000
Feasibility Phase (Federal)	\$ 3,250,000
Feasibility Phase (non-Federal)	\$ 3,250,000

The Reconnaissance Phase is scheduled to be completed June 2004. The completion date for the feasibility phase of the study is to be determined.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2005

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2004	Allocation FY 2004	Tentative Allocation FY 2005	Additional To Complete After FY 2005
	\$	\$	\$	\$	\$

Texas (continued)

Sabine - Neches Waterway	5,533,000	4,370,000	211,000	350,000	602,000
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The Sabine-Neches Waterway, Texas project is located in Beaumont, Orange, Port Arthur, and Sabine Pass in Jefferson and Orange Counties, Texas; and Cameron and Calcasieu Parishes, Louisiana. The Sabine-Neches Waterway is a 75 mile-long deep draft channel which extends from the 42-foot contour of the Gulf of Mexico through a jettied channel to Port Arthur, to Beaumont via the Neches River Channel, and to Orange via the Sabine River Channel. The Sabine-Neches Waterway serves the Ports of Port Arthur, Beaumont and Orange. Modifying the existing Sabine-Neches Waterway would result in a reduction in delays, increased safety, and increased efficiency of transporting commerce on the existing 40-foot deep waterway. Channel depths of 45, 50, and 55 feet will be investigated, as well as increased channel widths. A major effort in this study will be the coordination of environmentally suitable dredged material placement areas for construction materials, as well as for future channel maintenance. The Jefferson County Waterway and Navigation District is the non-Federal Sponsor for the 40-foot Project to Port Arthur and Beaumont, Texas, and the Orange County Navigation District is the non-Federal Sponsor for the 30-foot Sabine River Project. The sponsor for this feasibility study is the Jefferson County Waterway and Navigation District. The Feasibility Cost Sharing Agreement was executed on 6 March 2000.

Fiscal Year 2004 funds are being used to continue the feasibility phase of the study. Fiscal Year 2005 funds will be used to continue feasibility study activities, which include the completion of the draft Feasibility Report and EIS. The estimated cost of the feasibility phase is \$10,816,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of the study cost sharing is as follows:

Total Estimated Study Cost	\$10,941,000
Reconnaissance Phase (Federal)	\$ 125,000
Feasibility Phase (Federal)	\$ 5,408,000
Feasibility Phase (Non-Federal)	\$ 5,408,000

The completion date for the feasibility phase is to be determined.

SUBTOTAL NAVIGATION STUDIES	34,519,000	11,636,000	1,740,000	2,575,000	18,568,000
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APPROPRIATION TITLE: General Investigations, Fiscal Year 2005

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2004	Allocation FY 2004	Tentative Allocation FY 2005	Additional To Complete After FY 2005
	\$	\$	\$	\$	\$

b. Flood Damage Prevention Studies: The amount of \$1,550,000 is requested in Fiscal Year 2005 for continuation of five studies.

Texas

Buffalo Bayou and Tributaries (White Oak Bayou)	2,200,000	450,000	374,000	350,000	1,026,000
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White Oak Bayou, a tributary of Buffalo Bayou, has a drainage area of about 113 square miles and lies entirely within Harris County, Texas. White Oak Bayou rises in west central Harris County and flows in a southeasterly direction, a distance of about 34 miles to its confluence with Buffalo Bayou. Its major tributaries are Little White Oak Bayou, which enters from the north at mile 1.5, Brickhouse Gully, which enters from the west at miles 14.3, Cole Creek, which enters from the west at mile 17.3, and Vogel Creek, which enters from the north at mile 12.4. The primary water resource problem of the study area stems from frequent flooding of residential properties along White Oak Bayou and its tributaries, which is expected to worsen as the area becomes more populated and residential and commercial areas grow. Damaging floods have occurred in the White Oak Bayou Basin in 1935 (the flood of record), 1968, 1969, 1970, 1972, 1979, 1981, 1982, 1983, 1984, 1989, 1992, 1998 and 2001. The 1998 event, from Tropical Storm Frances, produced up to 14 inches of rain, flooded 1,200 homes in this watershed, and caused over \$100 million in damages in the Houston and Galveston areas. In June 2001 water from Tropical Storm Allison flooded an estimated 45,000 residences and caused approximately \$1.76 billion in damages in the Greater Houston area. An estimated 11,298 homes were flooded in the White Oak Bayou watershed as a result of Tropical Storm Allison. An estimated 1,656 businesses reported damages estimated at \$1.08 billion. Colleges and businesses in downtown Houston sustained approximately \$25 million in damages. There are over 7,000 structures subject to flooding in the 100-year (one percent chance) floodplain, with property values that exceed \$400,000,000. The onetime occurrence of a 100-year (one percent chance) flood would cause property damages of approximately \$258,000,000. The first 10.7 miles has been constructed as part of a Federal project authorized in FY 1954 and 1965. Due to extensive residential development of the flood plain and subsidence due to extraction of ground water, the existing project is not effective as constructed. A series of detention reservoirs and channel adjustments in the upper reaches could facilitate drainage in the watershed. The non-Federal Sponsor, the Harris County Flood Control District (HCFCD), will perform the study under the authority of Section 211 of the Water Resources Development Act of 1996 (WRDA 1996), to consider the entire White Oak Bayou Basin, including segments where the Federal project has already been constructed. The HCFCD will be reimbursed for the Federal share of the feasibility and reconnaissance study costs following completion and approval of the reports by the Secretary of the Army (Civil Works). The Reimbursement Agreement is scheduled to be executed in March 2004.

Fiscal Year 2004 funds are being used to initiate the reimbursement to the HCFCD of the Federal share of the costs for the

APPROPRIATION TITLE: General Investigations, Fiscal Year 2005

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2004	Allocation FY 2004	Tentative Allocation FY 2005	Additional To Complete After FY 2005
	\$	\$	\$	\$	\$

Texas (continued)

Buffalo Bayou and Tributaries
(White Oak Bayou) (continued)

completed reconnaissance phase of the study upon approval by the Secretary of the Army (Civil Works), and for Corps of Engineers' coordination costs. Fiscal Year 2005 funds will be used for Corps of Engineers' coordination costs. The preliminary estimated cost of the feasibility phase is \$4,100,000, which is to be shared on a 50-50 basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	\$ 4,250,000
Reconnaissance Phase (Federal)	\$ 150,000
Feasibility Phase (Federal)	\$ 2,050,000
Feasibility Phase (non-Federal)	\$ 2,050,000

The scheduled completion date for the feasibility phase of the study is to be determined.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2005

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2004	Allocation FY 2004	Tentative Allocation FY 2005	Additional To Complete After FY 2005
	\$	\$	\$	\$	\$

Texas (continued)

Freeport Hurricane Protection Levee	1,434,000	391,000	130,000	150,000	763,000
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Freeport is part of the nine-city Brazosport area, and is the center of a highly industrialized complex, which includes petrochemical and other industrial plants. It is also a deepwater port with related industries and a population of approximately 14,700 people. The existing project consists of a system of levees and pumping stations that protect about 42 square miles from inundation due to hurricanes and tropical storms. The request for the study was precipitated by a recent risk analysis study funded by the Dow Chemical Company. The request cites 6 major changes that have occurred since the original Corps study was completed in 1958: (1) industrial and residential property values have significantly increased, possibly 10 to 100 fold; (2) there has been a significant advancement in computer and modeling technology; (3) there is approximately 40 years of hurricane data available; (4) the Brazos River Harbor and Navigation District and Corps' harbor dredging projects have significantly reduced the ponding area and capacity outlined in the 1958 study; (5) the Drainage District has added significant pumping capacity (3,000,000 gallons per minute) relative to the original constructed project; and (6) possible increased subsidence in the local coastal plain. The study was proposed because of higher flood plain elevations from hurricanes, tropical storms, and related events predicted by the Flood Insurance Administration (FIA) in the Freeport Area. Damages could exceed \$100,000,000 if the current levees are overtopped. An initial appraisal was prepared to evaluate the Federal interest in pursuing a reconnaissance study to determine the adequacy of the hurricane flood protection levee at Freeport. The initial appraisal verified the validity of reviewing the current project in light of current flood levels projected by the FIA. The non-Federal Sponsor for the project is the Velasco Drainage District. The Feasibility Cost Sharing Agreement was executed in July 2002.

Fiscal Year 2004 funds are being used to continue the feasibility phase of the study. Fiscal Year 2005 funds will be used to continue the feasibility study. The study will assess the engineering, economic, and environmental components of modifying the levees and pump capabilities. The preliminary estimated cost of the feasibility phase is \$2,668,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of the study cost sharing is as follows:

Total Estimated Study Cost	\$2,768,000
Reconnaissance Phase (Federal)	\$ 100,000
Feasibility Phase (Federal)	\$1,334,000
Feasibility Phase (Non-Federal)	\$1,334,000

The reconnaissance phase was completed in July 2002. The completion date for the feasibility phase is to be determined.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2005

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2004	Allocation FY 2004	Tentative Allocation FY 2005	Additional To Complete After FY 2005
	\$	\$	\$	\$	\$

Texas (continued)

Harris Gully	2,510,000	43,000	66,000	250,000	2,151,000
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The project is located in southwest Houston, Texas, near the Texas Medical Center (TMC). Harris Gully consists of two underground fifteen-foot box culverts that run underneath Rice University and the TMC, draining approximately 4.5 square miles into Brays Bayou. Harris Gully provides major drainage in the TMC area directly affecting the performance of storm water in and around the TMC, Rice University, and Hermann Park areas in Southeast Houston. Texas Medical Center is a national and international medical hub, as well as, a nationally and internationally recognized research facility. In June 2001, approximately 14 inches of rain fell in the watershed in a nine-hour period during Tropical Storm Allison. The resulting flooding from the storm cost member institutions over \$2 billion, forced the evacuation of hundreds of patients from eight hospitals to alternative sites, and caused 5 patient deaths at one of these hospitals. The Texas Medical Center and Harris County Flood Control District have expressed intent to share equally in the feasibility phase cost that may follow the reconnaissance study.

Fiscal Year 2004 funds are being used to complete the Reconnaissance Phase of the study. If the reconnaissance report is certified to be in accord with policy, the funds requested for Fiscal Year 2004 will also be used to continue feasibility phase of the study. The funds requested for Fiscal Year 2005 will be used to continue the feasibility study. The preliminary estimated cost of the Feasibility Phase is \$4,820,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	\$4,920,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	2,410,000
Feasibility Phase (Non-Federal)	2,410,000

The Reconnaissance Phase is scheduled to be completed in June 2004. The completion date for the feasibility phase of the study is to be determined.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2005

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2004	Allocation FY 2004	Tentative Allocation FY 2005	Additional To Complete After FY 2005
	\$	\$	\$	\$	\$

Texas (continued)

Lower Sabine River	2,700,000	39,000	65,000	200,000	2,396,000
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The Lower portion of the Sabine River stretches from Toledo Bend Reservoir south approximately 156 miles to the Gulf of Mexico. The purpose of this study is to determine Federal interest in solutions to flooding problems along the Sabine River from the Toledo Bend Reservoir to the Gulf of Mexico. The study will address flood damage reduction and ecosystem restoration. The Toledo Bend Reservoir was developed in the 1960s primarily for water supply, hydroelectric, and recreation purposes. The reservoir was not designed for flood control. It can serve to attenuate flood conditions on the river, but has very little capacity to control flooding below the dam on the Lower Sabine River. Since the reservoir was completed, considerable development has occurred in the floodplain below the reservoir. There have been floods of recent record in 1967, 1989, 1991, and 1999 since completion of reservoir construction. Multiple floods have occurred since then resulting in significant flooding with ensuing damages to homes and businesses located in the floodplain. Coordination has been ongoing for some time between the Sabine River Authorities of Texas and Louisiana, the Federal Energy Regulatory Commission, Texas County, and Louisiana Parish officials and persons living or owning property in the floodplain regarding the flooding problems, possible causes, and possible mitigation for the flooding. Factors identified as either causing or aggravating the flooding are the presence of obstructions in the lower river, as well as natural features that constrict the capacity of the river. The Sabine River Authorities of Texas and Louisiana have expressed their willingness to cost share equally in the feasibility phase cost that might follow the reconnaissance study.

Fiscal Year 2004 funds are being used to complete the reconnaissance phase of the study. If the reconnaissance report is certified to be in accord with policy, the funds requested for Fiscal Year 2004 will also be used to initiate feasibility phase of the study. Fiscal Year 2005 funds will be used to continue feasibility phase studies. The preliminary estimated cost of the feasibility phase is \$5,200,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of the study cost is as follows:

Total Estimated Study Cost	\$ 5,300,000
Reconnaissance Phase (Federal)	\$ 100,000
Feasibility Phase (Federal)	\$ 2,600,000
Feasibility Phase (Non-Federal)	\$ 2,600,000

The completion date of the reconnaissance phase is scheduled for June 2004. The completion date for the feasibility phase of the study is to be determined.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2005

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2004	Allocation FY 2004	Tentative Allocation FY 2005	Additional To Complete After FY 2005
	\$	\$	\$	\$	\$

Texas (continued)

Upper Trinity River Basin	11,810,000	9,279,000	650,000	600,000	1,281,000
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The Upper Trinity River basin extends upstream from the confluence of the East Fork and the mainstem of the Trinity River, and has a drainage area of approximately 7,873 square miles and includes the Dallas-Fort Worth, Texas, Metroplex. This area had an estimated 2001 population of over \$5.5 million. Urban development of the Metroplex has greatly exceeded original expectations. In turn, the magnitude of storm runoff has increased beyond the original values used in design of these existing floodway projects; and thus reducing their effectiveness. Further, future development trends within the Dallas-Fort Worth Metroplex stand to worsen existing flooding potential. It is estimated that in the event of the Standard Project Flood, approximately 87,700 acres of flood plain properties within the Dallas-Fort Worth Metroplex would be inundated, resulting in an estimated \$14.0 billion in damages. Major floods occurred May-June 1989 and in April-May 1990. In the April-May 1990 floods, over \$300 million in flood damages occurred and three lives were lost. In 1990, all of the Corps lakes in the Upper Trinity River Basin were either close to the top of, or overflowing the spillway. Existing flood control projects in the Upper Trinity River Basin prevented a total estimated \$318 million in damages in 1989 and \$4 billion in 1990. Flooding during January 1992 resulted in nine deaths, over 200 homes and 12 businesses inundated, and millions of dollars in damages. In August 2001, a man drowned in the West Fork of the Trinity River during a rain event. In March 2002, a man drowned in the Trinity River in east Fort Worth during a multiple day rain event. The North Central Texas Council of Governments is the local sponsor representing sixteen communities, three counties, and the Tarrant Regional Water District. Study efforts have been directed to addressing improvements in the interest of flood protection, environmental restoration, water quality, recreation, and other allied purposes in the Upper Trinity River Basin with specific attention on the Dallas-Fort Worth Metroplex. Phase I of this two-phase feasibility study, which established base conditions, was completed in February 1995. Preliminary plan identification completed during Phase I for flood damage reduction, ecosystem restoration, and recreational projects identified 88 potential measures, which are economically viable. The results of these analyses were compiled into an Information Paper that was formally released to the public on 6 February 1995.

The Information Paper served as the basis for gaining sponsor commitments for undertaking more detailed studies of potential projects. To date, Project Study Plans (PSP)/Project Management Plans (PMP) that establish specific project and specific study cost sharing have been developed for the Dallas Floodway and Stemmons North Industrial Corridor, Texas; Johnson Creek, Arlington, Texas; Fort Worth Sumps 14W & 15W; Multipurpose Reevaluation of the Clear Fork/West Fork, Fort Worth, Texas; Big Fossil Creek Watershed; and Lake Worth Watershed, Texas. The Johnson Creek, Arlington, Texas, Interim Feasibility Report was finalized in March 1999. The Dallas Floodway and Stemmons North Industrial Corridor, Texas, Interim Feasibility Study was initiated in May 1996. The Clear Fork/West Fork Multipurpose Reevaluation Interim Feasibility Study was initiated in September 2000. The Central City study is an interim of the on-going Clear Fork/West Fork Multipurpose Reevaluation Interim Feasibility Study under the Upper Trinity and was initiated in March 2002. The Riverside Oxbow Interim Feasibility Study

APPROPRIATION TITLE: General Investigations, Fiscal Year 2005

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2004	Allocation FY 2004	Tentative Allocation FY 2005	Additional To Complete After FY 2005
	\$	\$	\$	\$	\$

Texas (continued)

Upper Trinity River Basin (continued)

was finalized in May 2003. The Big Fossil Creek Watershed Interim Feasibility Study was initiated in February 2001. The Lake Worth Watershed Interim Feasibility Study was initiated in November 2001. Additional Project Management Plans will be formalized prior to initiation of the feasibility studies for other potential projects where local sponsor interest prevails. Fiscal Year 2004 funds are being used to continue the Dallas Floodway and Stemmons North Industrial Corridor, Lake Worth, Clear Fork/West Fork Multipurpose Reevaluation - Central City, and Big Fossil Creek Watershed studies. The funds requested for Fiscal Year 2005 will be used to continue the interim feasibility studies for the Dallas Floodway and Stemmons North Industrial Corridor, Lake Worth and the Big Fossil Creek Watershed; and complete the interim feasibility study for Clear Fork/West Fork Multipurpose Reevaluation - Central City. The amount of the Feasibility Cost Sharing Agreement is \$22,000,000, which is being shared on a 50-50 percent basis by Federal and non-Federal interests. Up to 100 percent of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	\$ 22,810,000
Reconnaissance Phase (Federal)	810,000
Feasibility Phase (Federal)	11,000,000
Feasibility Phase (non-Federal)	11,000,000

The reconnaissance phase was completed in August 1990. As each study is completed, interim feasibility reports will be issued. The final Big Fossil Creek Watershed Interim Feasibility Study completion date is to be determined. The Clear Fork/West Fork Interim Feasibility Study completion date is to be determined. The Clear Fork/West Fork Interim Feasibility - Central City Interim Feasibility Study completion date is to be determined. The Dallas Floodway and Stemmons North Industrial Corridor Interim Feasibility Study completion date is to be determined. The Lake Worth Watershed Interim Feasibility Study completion date is to be determined. The overall feasibility study completion date is to be determined.

SUBTOTAL FLOOD DAMAGE

PREVENTION STUDIES	20,654,000	10,202,000	1,285,000	1,550,000	7,617,000
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APPROPRIATION TITLE: General Investigations, Fiscal Year 2005

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2004	Allocation FY 2004	Tentative Allocation FY 2005	Additional To Complete After FY 2005
	\$	\$	\$	\$	\$

c. Shoreline Protection Studies: None.

d. Special Studies: The amount of \$4,424,000 is requested for Fiscal Year 2005 for continuation of eleven studies.

Kansas

Walnut and White River Watersheds	595,000	241,000	104,000	219,000	31,000
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The Walnut River Basin covers about 2,000 square miles in southeastern Kansas. The Walnut River combines with the Arkansas River at Arkansas City, which flows across the Kansas-Oklahoma State Line within about 10 miles of Arkansas City. The city of Wichita is located immediately west of the basin. The US Fish and Wildlife Service (USFWS) estimated that Kansas has lost almost 50 percent of its wetlands since the 1980's, with the vast majority of the losses since 1950. The loss of these wetlands means urban and rural runoff previously "filtered naturally" before entering a watercourse now enters the stream directly. Undisturbed riparian habitat of timber, brush, grasses, and wetlands once existed along both banks of over 600 miles of primary watercourses within the basin. Through coordination with stakeholders and based on prior experience with basin studies, it was concluded that riparian habitat coverage and quality has decreased, and losses are still occurring. The result is both a reduction in area and ecological system viability due to fragmentation. Some of the measurable losses include wildlife density, reductions in animal and plant species, and significant reductions in water quality. The recommended plan is a collection of standard ecosystem management measures to be implemented in a basin-wide riparian and riverine ecosystem restoration and preservation approach. About a dozen state and Federal Environmental Agencies will participate as team members in the feasibility study. The feasibility study will identify ecosystem resources, evaluate the system qualities, determine past losses and current needs, and evaluate potential restoration and preservation measures. Justified collections of measures, that are found to be warranted and acceptable to the sponsor and the Federal government, will be recommended for implementation through a prioritized, multi-year, plan of incremental design and development. In part this plan will allow monitoring of implemented restoration measures, which will provide opportunities to revise and improve the application of standard best management practices for this basin application. The scope of the study focuses on basin floodplain resources, including riverine and riparian ecosystem components. The sponsor for the feasibility phase of the study is the Kansas Water Office. The Feasibility Cost Sharing Agreement was executed in November 2001.

Fiscal Year 2004 funds are being used to continue the feasibility phase of the study. Funds requested for Fiscal Year 2005 will be used to continue the feasibility phase. The preliminary estimated cost of the feasibility phase is \$990,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

APPROPRIATION TITLE: General Investigations, Fiscal Year 2005

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2004	Allocation FY 2004	Tentative Allocation FY 2005	Additional To Complete After FY 2005
	\$	\$	\$	\$	\$

Kansas (continued)

Walnut and White River Watersheds (continued)

Total Estimated Study Cost	\$1,090,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	495,000
Feasibility Phase (Non-Federal)	495,000

The reconnaissance phase was completed in November 2001. The completion date for the feasibility phase of the study is being determined.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2005

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2004	Allocation FY 2004	Tentative Allocation FY 2005	Additional To Complete After FY 2005
	\$	\$	\$	\$	\$

Missouri

Springfield	1,600,000	100,000	260,000	500,000	740,000
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The study area is along Jordan Creek in the heart of the City of Springfield, Missouri. Jordan Creek is an urban stream, which was channelized (vertical wall concrete channel in part with a portion in downtown Springfield being underground culverts) in the 1930's. Development in the basin has increased flood flows. The capacity of the channel to carry flows above approximately a 10-year event is exceeded causing flood damages to businesses, industry, residential, utilities, and transportation. The last flood was in July 2000 and was estimated to be a 100-year event. The value of structures in the 500-year flood plain is \$75,000,000. Environmental restoration in the flood plain of previously developed lands would also be addressed. Wetland creation and fishery habitat will be considered in areas that now or previously had quarries, railroad yards, concrete plants and other development. The study would determine whether there is a Federal interest in environmental restoration and flood damage reduction measures in the study area. Possible solutions to water resource problems include non-structural flood damage measures, development of environmental and floodplain buffer zones along the river, creation of floodplain overflow wetlands, channel modification or clearing and snagging to improve channel capacities, and combinations of those alternatives. The City of Springfield understands the cost sharing requirements and is the local sponsor. The Feasibility Cost Sharing Agreement is scheduled to be executed in March 2004.

Fiscal Year 2004 funds will be used to initiate the feasibility phase of the study. Fiscal Year 2005 will be used to continue the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is \$3,000,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	\$3,100,000
Reconnaissance Phase (Federal)	\$ 100,000
Feasibility Phase (Federal)	\$1,500,000
Feasibility Phase (Non-Federal)	\$1,500,000

The reconnaissance report was certified in January 2003 to be in accordance with policy. The reconnaissance phase is scheduled to be completed in March 2004. The completion date for the feasibility phase of the study is to be determined.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2005

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2004	Allocation FY 2004	Tentative Allocation FY 2005	Additional To Complete After FY 2005
	\$	\$	\$	\$	\$

Oklahoma

Oologah Watershed	2,362,000	229,000	0	200,000	1,933,000
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The study area includes the 4,339 square mile drainage basin of the Verdigris River Basin in southeastern Kansas and northeastern Oklahoma upstream of Oologah Lake, OK, a Corps of Engineers multipurpose reservoir. The study area also includes Elk City, Fall River, Toronto, and Pearson-Skubitz Big Hill Lakes in Kansas, all multipurpose lakes constructed by the Corps of Engineers. Oologah Lake was authorized by the Flood Control Act of 1938 for flood control, water supply, navigation, recreation, and fish and wildlife. Construction of the project was completed in 1974. The Verdigris River is on the State of Oklahoma's list of impaired waters due to siltation, suspended solids, and pesticides. Loss of aquatic habitat due to degradation of the lake and basin water quality is occurring at an increasing rate as the population around the lake increases and as development in the basin occurs. The State of Oklahoma has expressed concern about the loss of habitat, water quality, fish kills and the accompanying loss of tourism and other economic benefits for the region as a result of declines in the water quality and related aquatic habitat. An initial appraisal report was completed in Fiscal Year 2002. The report found a Federal interest in proceeding with feasibility phase studies. The feasibility study will identify potential measures to restore the ecosystem in the basin and will evaluate other water resource problems and potential solutions. Potential solutions include development of wetlands to provide habitat and improve water quality for aquatic ecosystems, restoration of riverine corridors, development of a comprehensive watershed plan, and other measures. The sponsor for the feasibility phase of the study is the Tulsa Metropolitan Utility Authority. The Feasibility Cost Sharing Agreement was executed in July 2002.

Fiscal Year 2004 funds are being used to continue the feasibility phase of the study. Funds requested for Fiscal Year 2005 will be used to continue the feasibility phase. The preliminary estimated cost of the feasibility phase is \$4,624,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	\$4,674,000
Reconnaissance Phase (Federal)	50,000
Feasibility Phase (Federal)	2,312,000
Feasibility Phase (Non-Federal)	2,312,000

The reconnaissance phase was completed in July 2002. The completion date for the feasibility phase of the study is to be determined.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2005

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2004	Allocation FY 2004	Tentative Allocation FY 2005	Additional To Complete After FY 2005
	\$	\$	\$	\$	\$

Texas

Guadalupe and San Antonio Rivers	4,515,000	1,175,000	325,000	630,000	2,385,000
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The study area includes the Guadalupe and San Antonio River Basins. It is located in south central Texas, extending approximately 110 miles southeasterly from the headwaters in Kerr and Bandera Counties, to the terminus at the Gulf of Mexico in Refugio and Calhoun Counties. The Guadalupe Basin has a drainage area of 6,700 square miles, and the San Antonio River Basin has 4,180 square miles. Flooding within various portions of the basin was severe in 1972 and in 1978, when portions of the river basins were declared disaster areas. Flooding again plagued the area in 1997, with total damages estimated at \$1.9 million. In October 1998, the largest of all recent flood events within the region accounted for at least 31 deaths, and caused damages estimated to be \$300 million. Many communities experienced inundation to rooftop levels, with water velocities great enough to completely demolish brick homes. The most recent flood event, in June-July 2002, resulted in 9 deaths in the study area. Significant impact was felt in New Braunfels, on the Guadalupe River where flooding destroyed approximately 100 homes and 10 businesses, and had a negative impact on the tourism industry, a major generator of income in this area. The study consists of an investigation of the Guadalupe and San Antonio River Basins to address improvements in the interest of flood damage reduction, environmental restoration, water quality, water supply, recreation and other allied purposes. Both structural and nonstructural solutions will be investigated to reduce flood damages while addressing the environmental needs of the watershed. Initial studies have identified potential water resource opportunities in the Cibolo, Leon, and Salado watersheds and the region encompassed by the Goliad, Karnes, and Wilson Counties (Lower San Antonio River Basin). The Cibolo Creek Interim Feasibility Study is the first interim feasibility study funded under the Guadalupe and San Antonio Rivers Study. The interim feasibility studies for the Leon Creek Watershed and Salado Creek Watershed will also be funded under the Guadalupe and San Antonio Rivers Basin-wide Study. The Lower San Antonio River Basin Feasibility Study and the Lower Guadalupe Basin Feasibility Study are being funded under separate budgeted line items. The Guadalupe-Blanco River Authority, San Antonio River Authority, and the San Antonio Water System support the Cibolo Creek interim feasibility study and have signed a Feasibility Cost Sharing Agreement on 20 February 2002. The San Antonio River Authority is the sponsor for the Lower San Antonio River Basin study and will be the sponsor for both the Salado and Leon Creek interim feasibility studies.

Fiscal Year 2004 funds are being used to continue the Cibolo Creek interim feasibility study and develop the project management plans for the Salado and Leon Creek interim feasibility studies. Fiscal Year 2005 funds will be used to complete the alternative formulation phase of the Cibolo Creek interim feasibility study and initiate the Salado and Leon Creek interim feasibility studies. The preliminary estimated cost of the overall feasibility study is \$8,510,000, which is to be

APPROPRIATION TITLE: General Investigations, Fiscal Year 2005

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2004	Allocation FY 2004	Tentative Allocation FY 2005	Additional To Complete After FY 2005
	\$	\$	\$	\$	\$

Texas (continued)

Guadalupe and San Antonio Rivers (continued)

shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	\$8,510,000
Reconnaissance Phase (Federal)	520,000
Feasibility Phase (Federal)	3,995,000
Feasibility Phase (non-Federal)	3,995,000

The overall feasibility study completion date is to be determined.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2005

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2004	Allocation FY 2004	Tentative Allocation FY 2005	Additional To Complete After FY 2005
	\$	\$	\$	\$	\$

Texas (continued)

Lower Colorado River	8,225,000	3,593,000	719,000	1,200,000	2,713,000
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The Lower Colorado River basin encompasses a geographic area of approximately 21,000 square miles, and includes portions of the following counties in Central and South Texas: Bastrop, Blanco, Burnet, Colorado, Fayette, Hays, Lampasas, Llano, Matagorda, Mills, San Saba, Travis, and Wharton. The northernmost reaches of the study area include the Highland Lakes upstream of Austin, while the southernmost boundary is the Gulf of Mexico. The study area is bounded by the Guadalupe, Lacava, and Colorado-Lavaca basins on the west, and the Brazos and Brazos-Colorado basins on the east. The major Texas metropolitan areas within the study boundaries are Austin, Bastrop, Bay City, Columbus, LaGrange, Marble Falls, and Wharton. In October 1998, widespread flooding and related damages occurred throughout the Lower Colorado River Basin. A major component of the basin is the Onion Creek watershed, which originates in Blanco County, continues through Hays County, and then into Travis County, where the creek flows into the Colorado River. The Onion Creek study area is located in the Colorado River Basin, and within the rapid growing urban area of Austin, Texas. Onion Creek is the largest creek in the Austin area with a drainage area of 343 square miles, collecting flows from Williamson, Slaughter, Bear, Little Bear, Rinard, South Boggy, Marble and Cottonmouth Creeks and their tributaries. The creek has a long history of flooding dating back to 1869 and most recently in 1981, 1991, 1998, 2001 and 2002. The flooding along Onion Creek in November 2001 was near the flood of record. The city of Wharton was declared a disaster area in the most recent flood events of October 1998 and September 2002. Eleven flood events have occurred since 1900, resulting in extensive flood damages and the loss of seven lives. Flows in excess of the 100-year, one percent chance, event have occurred on two separate occasions, while the 50-year (two percent chance) event has occurred on two other occasions. Onion Creek, Shoal and Walnut Creeks, the Highland Lakes, and the city of Wharton have experienced increased flooding and alterations to wildlife habitat. A recently published Information Paper documents the studies that were conducted during Phase 1 of this study. This study effort focused on identifying the problems, needs and opportunities of the basin. The study identified approximately 34,000 structures in the lower Colorado River floodplain with over \$25 million in expected average annual damages. The study also identified 25 potential sites for ecosystem restoration. While most of the problem areas will be addressed in previously identified interim feasibility studies, there are sites, which await the identification of a cost sharing sponsor. Interim feasibility studies of Onion Creek, the city of Wharton, and the Lower Colorado River (Highland Lakes and the mainstem) are being conducted concurrently with the basin-wide study. Interim studies for Shoal and Walnut Creeks in Austin are also scheduled to be conducted under the Lower Colorado River Basin Study. The Lower Colorado River Authority is the local sponsor for the feasibility study and will act on behalf of the cities of Austin, Sunset Valley, and Wharton, Travis County, and other entities identified during the course of these studies.

Fiscal Year 2004 funds are being used to continue the Onion Creek and Wharton Interim Feasibility Studies and the Programmatic Environmental Impact Statement (PEIS), and to prepare the Project Management Plan and initiate the Lower

APPROPRIATION TITLE: General Investigations, Fiscal Year 2005

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2004	Allocation FY 2004	Tentative Allocation FY 2005	Additional To Complete After FY 2005
	\$	\$	\$	\$	\$

Texas (continued)

Lower Colorado River (continued)

Colorado River Interim Feasibility Study. Fiscal Year 2005 funds will be used to continue the Onion Creek, Wharton, and the Lower Colorado River Interim Feasibility Studies and the Programmatic Environmental Impact Statement. The preliminary estimated cost of the overall feasibility phase and five additional interim studies is \$16,325,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	\$ 16,325,000
Reconnaissance Phase (Federal)	125,000
Feasibility Phase (Federal)	8,100,000
Feasibility Phase (non-Federal)	8,100,000

The completion dates for the interim feasibility studies of Onion Creek, Wharton, and the Lower Colorado River are to be determined.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2005

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2004	Allocation FY 2004	Tentative Allocation FY 2005	Additional To Complete After FY 2005
	\$	\$	\$	\$	\$

Texas (continued)

Lower Guadalupe and San Antonio Rivers	2,000,000	15,000	0	250,000	1,735,000
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The Guadalupe and San Antonio River Basins (GSAR) are located in south central Texas, extending southeasterly from Kerr and Bandera Counties, respectively, to the Texas Gulf coast. The proposed study to address flood damage reduction and ecosystem restoration in the Lower Guadalupe River Basin (from the confluence of the San Antonio and Guadalupe Rivers to San Antonio Bay) is an interim feasibility study under the authority for the GSAR Feasibility Study. The Lower Guadalupe-Blanco River Authority has expressed a willingness to cost share equally in the feasibility phase.

Fiscal Year 2004 funds are being used to develop a Project Management Plan (PMP), negotiate and sign a Federal Cost Sharing Agreement, and initiate feasibility study. Fiscal Year 2005 funds will be used to continue the feasibility study. The preliminary estimated cost of the feasibility phase is \$4,000,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interest. A summary of the study cost is as follows:

Total Estimated Study Cost	\$ 4,000,000
Reconnaissance Phase (Federal)	\$ 0
Feasibility Phase (Federal)	\$ 2,000,000
Feasibility Phase (Non-Federal)	\$ 2,000,000

The reconnaissance phase is scheduled to be completed in September 2004. The completion date for the feasibility phase of the study is to be determined.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2005

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2004	Allocation FY 2004	Tentative Allocation FY 2005	Additional To Complete After FY 2005
	\$	\$	\$	\$	\$

Texas (continued)

Lower San Antonio River Basin (Tri-County)	2,157,000	188,000	195,000	200,000	1,574,000
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The study area is located in and around the south central Texas counties of Karnes, Wilson, and Goliad, extending southeasterly from the city of San Antonio, Texas, along the San Antonio River. The study is an interim feasibility of the Guadalupe and San Antonio River Basins feasibility study. The largest of all recent flood events in the region, the October 1998 flood event, caused damages to 15-20 homes in Goliad County. Approximately 80 homes and 575 mobile homes were either destroyed or damaged in Wilson County and total losses were estimated at \$147.5 million, encompassing almost all in the cities of La Vernia and Floresville. In a subsequent July 2002 flood event, the San Antonio river basin sustained more than an estimated 16 inches of rainfall in six days resulting in 8 deaths, 280 homes damaged, and \$8.9 million in estimated infrastructure damages. Communities experienced inundation to rooftop levels, resulting in virtual submersion of towns located along the river. The study consists of an investigation of the lower San Antonio River and contributing tributaries within and around Wilson, Karnes and Goliad counties to address improvements in the interest of flood damage reduction, ecosystem restoration, recreation and other allied purposes. Both structural and nonstructural solutions will be investigated. The San Antonio River Authority is acting as the local sponsor.

Fiscal Year 2004 funds are being used to continue the feasibility phase of the study. Fiscal Year 2005 funds will be used to continue the feasibility study. The preliminary estimated cost of the feasibility study is \$4,260,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	\$ 4,287,000
Reconnaissance Phase (Federal)	27,000
Feasibility Phase (Federal)	2,130,000
Feasibility Phase (non-Federal)	2,130,000

The Lower San Antonio River Basin (Tri-County), Texas, interim feasibility study completion date is to be determined.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2005

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2004	Allocation FY 2004	Tentative Allocation FY 2005	Additional To Complete After FY 2005
	\$	\$	\$	\$	\$

Texas (continued)

Middle Brazos River	3,055,000	894,000	126,000	150,000	1,885,000
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The study area is located within the middle portion of the Brazos River Basin, which is bounded on the northwest by the Clear Fork of the Brazos River and on the southeast by Yegua Creek, and includes all or part of 32 counties. Urbanization and concurrent changes in land use to support the human environment have caused many changes in the ecological character of the Middle Brazos River Basin, and have resulted in significant adverse impacts to the natural environment. The reconnaissance study included three major sub-basins; the North Bosque, Leon and the Lampasas. The North Bosque sub-basin is the most impacted of the three at present. A trends analysis conducted during this study indicated that if the environmental conditions continue as they have for 30 years, the quality of the environment would continue to degrade in the future. Consequently, the North Bosque River has been placed on the Clean Water Act Section 303(d) list by the Environmental Protection Agency. One of the purposes of this study is to develop, evaluate and recommend plans for ecosystem restoration and water quality improvements. Potential solutions include possible ecosystem restoration projects in areas of all existing lakes in the Middle Brazos River Basin. Work to be performed consists of feasibility level studies to investigate alternatives to re-establish aquatic and wildlife habitats. Projects identified in the reconnaissance phase include riparian corridor reforestation, wetlands and combinations of these alternatives. The study area also includes 11 Federal and non-Federal reservoirs. Population growth in the basin has necessitated an evaluation of current water management strategies. A second purpose of this study is to determine if existing water resources can be better allocated to meet the changing needs of the basin. The Brazos River Authority supports the proposed Systems Assessment study to evaluate water management strategies. The Feasibility Cost Sharing Agreement was signed by the Brazos River Authority on 30 September 1999.

Fiscal Year 2004 funds are being used to complete the North Bosque Interim Feasibility Study and complete negotiations of feasibility cost sharing agreement and initiate a System Assessment Interim Feasibility Study. Fiscal Year 2005 funds will be used to continue the System Assessment Interim Feasibility Study, and identify additional interim feasibility studies. The preliminary estimated cost of the feasibility phase is \$5,555,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	\$ 5,555,000
Reconnaissance Phase (Federal)	555,000
Feasibility Phase (Federal)	2,500,000
Feasibility Phase (Non-Federal)	2,500,000

APPROPRIATION TITLE: General Investigations, Fiscal Year 2005

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2004	Allocation FY 2004	Tentative Allocation FY 2005	Additional To Complete After FY 2005
	\$	\$	\$	\$	\$

Texas (continued)

Middle Brazos River (continued)

The North Bosque River Interim Feasibility Study is scheduled to be complete in September 2004. The proposed System Assessment Interim Feasibility Study completion date, and the completion date for the overall Middle Brazos River Feasibility Study is to be determined.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2005

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2004	Allocation FY 2004	Tentative Allocation FY 2005	Additional To Complete After FY 2005
	\$	\$	\$	\$	\$

Texas (continued)

Nueces River and Tributaries	5,172,000	172,000	65,000	500,000	4,435,000
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The Nueces River Basin lies in the southern part of Texas. The headwaters of the West Nueces River resides in Edwards County about 13 miles northwest of Rocksprings, Texas. The headwaters of the East Nueces River is located near the northwest corner of Real County about 16 miles northeast of Rocksprings, Texas and flows about 55 miles south to its confluence with the West Nueces River. The Nueces River then flows in a southeasterly direction and enters Nueces Bay near Corpus Christi, Texas. The Nueces River Basin has an overall length of approximately 235 miles, a maximum width of 115 miles, and has a total drainage area of 17,075 square miles. The Frio River is a principal tributary and drains the northeast edge of the Nueces River Basin. The Edwards Plateau accounts for about 20 percent of the basin and is recognized to have high potential for ground water recharge. Historic land use practices, drought and poor water resource management have resulted in significant environmental degradation. The lack of fresh-water inflows have resulted in hyper-saline conditions has severely diminished habitat suitability approximately 20,000 acres of the Nueces delta area. Additionally, existing surface and ground water sources are not sufficient to assure an adequate water supply to fulfill future needs. Recent floods in 1998 and 2002 resulted in significant agricultural and infrastructure damages. The 905(b) reconnaissance report was completed in December 2002 and the reconnaissance phase will be completed in January 2004. The study identified Federal interest in evaluating opportunities in the study area for ecosystem restoration, water quality, water supply, flood damage reduction, recreation, and other allied purposes. The study's sponsors are the Nueces River Authority, San Antonio Water System, San Antonio River Authority, Guadalupe-Blanco River Authority and city of Corpus Christi.

Fiscal Year 2004 funds are being used to complete the reconnaissance phase and initiate the feasibility phase of the study. Fiscal Year 2005 funds will be used to continue the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is \$10,000,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	\$10,172,000
Reconnaissance Phase (Federal)	172,000
Feasibility Phase (Federal)	5,000,000
Feasibility Phase (Non-Federal)	5,000,000

The reconnaissance phase is scheduled to be completed in March 2004. The completion date for the Nueces River and Tributaries, TX feasibility study is to be determined.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2005

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2004	Allocation FY 2004	Tentative Allocation FY 2005	Additional To Complete After FY 2005
	\$	\$	\$	\$	\$

Texas (continued)

Resacas at Brownsville	2,280,000	589,000	195,000	250,000	1,246,000
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The study area is located in the City of Brownsville along the Rio Grande in South Texas. The city requested a study of the resacas of the Rio Grande. Resacas are small lakes and reservoirs formed from the meandering of the Rio Grande, and are capable of providing a certain level of flood protection for the city (similar to detention reservoirs). During the past ten years, siltation and plant growth have reduced the capacity of the resacas, and the city would like to investigate economical ways of preserving and restoring the resacas to a natural state. In addition, noxious weeds, such as hydrilla and water hyacinth, are jeopardizing the only surface water supply for the city. Along with the Rio Grande, the City's resacas are the last vestige of usable surface water for the area. The resacas become more valuable as time passes given the unpredictable nature of the contamination in the Rio Grande and the continuing drought conditions that have impacted all of South Texas. The study effort will evaluate the environmental restoration of the resacas and enhanced water storage. This study will be closely coordinated with the stakeholder members of the Consortium of the Rio Grande (CoRio) as part of the American Heritage Rivers Initiative. The Non-Federal Sponsor for the project is the Brownsville Public Utilities Board, who has indicated intent to share equally in the feasibility phase cost that would follow a successful reconnaissance study. The FCSA was executed in 17 April 2002.

Fiscal Year 2004 funds are being used to continue the feasibility phase of the study. The feasibility study will assess the engineering, economic, and environmental components of restoring the resacas. Work will include surveys, hydraulic analysis, water and sediment quality surveys, and benefit determinations. Fiscal Year 2005 funds will be used to continue feasibility studies. The preliminary estimated cost of the feasibility phase is \$4,360,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of the study cost sharing is as follows:

Total Estimated Study Cost	\$ 4,460,000
Reconnaissance Phase (Federal)	\$ 100,000
Feasibility Phase (Federal)	\$ 2,180,000
Feasibility Phase (Non-Federal)	\$ 2,180,000

The reconnaissance phase was completed in April 2002. The completion date for the feasibility phase of the study is to be determined.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2005

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2004	Allocation FY 2004	Tentative Allocation FY 2005	Additional To Complete After FY 2005
	\$	\$	\$	\$	\$

Texas (continued)

Sabine Pass to Galveston Bay	2,276,000	871,000	292,000	325,000	788,000
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The study area consists of approximately 90 miles of Gulf of Mexico shoreline in Jefferson, Chambers, and Galveston Counties along the upper Texas coast from Sabine Pass to San Luis Pass at the western end of Galveston Island. In the entire study area, over 200 houses and up to 40,000 people are affected by shore erosion. The major problems identified in the reach to the north of Galveston Bay are potential destruction of nationally significant wetlands; damage to homes and commercial property; and significant damage to State Highway 87, caused by shoreline erosion. Interest has been expressed in a project to stabilize the shoreline and thus protect nationally significant wetlands and other resources. The area traverses 12 miles of the 81,700-acre McFaddin Marsh National Wildlife Refuge and approximately 2-1/2 miles of the 15,100-acre Sea Rim State Park. Sea Rim State Park is located in the easterly portion of the study area, approximately 10 miles west of Sabine Pass with McFaddin Marsh Refuge immediately to the west. Along the Galveston Island, Texas reach of the study area, erosion rates in excess of 8 feet per year are occurring beyond the limits of the seawall in Galveston, Texas. This erosion, if continued, will result in damages to several beach communities. It has been demonstrated that an economically feasible project could be developed as a result of studies completed in the mid-1980s for a Galveston Island Beach Erosion Study. A number of alternatives have been proposed, including beach nourishment and stone protection. The non-Federal Sponsors for the project are Galveston and Jefferson Counties. A Feasibility Cost Sharing Agreement was executed on 6 September 2001.

Fiscal Year 2004 funds are being used to continue the feasibility phase of the study. Funds requested in Fiscal Year 2005 will be used to continue feasibility phase studies. The preliminary estimated cost of the feasibility phase is \$4,382,000, which will be shared on a 50-50 percent basis by the Federal and non-Federal interests. A summary of the study cost sharing is as follows:

Total Estimated Study Cost	\$4,467,000
Reconnaissance Phase (Federal)	\$ 85,000
Feasibility Phase (Federal)	\$2,191,000
Feasibility Phase (non-Federal)	\$2,191,000

The completion date for the feasibility phase is to be determined.

SUBTOTAL SPECIAL STUDIES	34,237,000	8,067,000	2,281,000	4,424,000	19,465,000
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APPROPRIATION TITLE: General Investigations, Fiscal Year 2005

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2004	Allocation FY 2004	Tentative Allocation FY 2005	Additional To Complete After FY 2005
	\$	\$	\$	\$	\$

e. Comprehensive Studies: None.

f. Project Review Studies: The amount of \$500,000 is requested in Fiscal Year 2005 for continuation of two studies.

Texas

Gulf Intracoastal Waterway - Brazos River to Port O'Connor	5,150,000	3,648,000	235,000	250,000	1,017,000
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The study area includes approximately 72 miles of the Gulf Intracoastal Waterway (GIWW) in Brazoria, Matagorda and Calhoun Counties, from the Brazos River near Freeport to Port O'Connor, Texas. Tonnage transported along this section of the GIWW totaled nearly 16 million tons in 1994, with petrochemicals as the major commodity shipped. This study will evaluate operational problems along this reach of the GIWW. An initial appraisal of the entire 423-mile Texas Section of the GIWW was completed in November 1989. Initial problems identified by users along this reach include difficulties navigating currents encountered as a result of river flows from the San Bernard; high shoaling at Jones Creek, bank erosion at miles 408-420 and 446-451, safety concerns and dangerous currents across Matagorda Bay (mile 454-473), and delays and one-way traffic at Caney Creek (mile 420). Gulf Intracoastal Waterway Users have identified safety issues at the Matagorda Ship Channel crossing due to high shoaling rates and tidal currents. One possible solution to reduce navigation operational difficulties was to relocate the channel across portions of Matagorda Bay. In order to expedite identifying a viable solution to these safety issues, the Matagorda Bay reach was studied separately as an interim to the overall feasibility study. The bank erosion at miles 408-420 and 446-451 and shoaling at Jones Creek have been removed from the study due to recent communication with the waterway users indicating there is not a navigation problem. The problems at the San Bernard will be studied as one system in conjunction with the Brazos River Floodgates. Possible bend easing at Caney Creek is the only area under evaluation. The State of Texas is the non-Federal Sponsor of the GIWW and continues to maintain a high interest in the waterway because of the economic importance of the waterway to the State and their responsibility to provide dredged material disposal areas. The GIWW is designated as part of the Nation's Inland Waterway System and qualifies for 50-50 cost sharing from the Inland Waterways Trust Fund for construction purposes. No feasibility cost sharing agreement is required, and all study costs are 100 percent Federal.

Fiscal Year 2004 funds are being used to continue analyses for Caney Creek. Fiscal Year 2005 activities include continuation of feasibility analyses and selection of a recommended plan for Caney Creek. The reconnaissance phase was completed in August 1998. The GIWW-Matagorda Bay Interim Feasibility Study was completed in June 2002. The completion date for the overall feasibility study is to be determined.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2005

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2004	Allocation FY 2004	Tentative Allocation FY 2005	Additional To Complete After FY 2005
	\$	\$	\$	\$	\$

Texas (continued)

Gulf Intracoastal Waterway - Port O'Connor to Corpus Christi Bay	5,900,000	2,566,000	260,000	250,000	2,824,000
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The study area includes approximately 79 miles of the Texas section of the main channel of the Gulf Intracoastal Waterway (GIWW), extending from Port O'Connor to the Kennedy Causeway at Corpus Christi Bay. Tonnage transported along this section of the GIWW totaled nearly 16.6 million tons in 2001. The purpose of this study is to evaluate operational problems and address environmental concerns along this reach of the waterway. Thirty-one (31) miles of this reach of the waterway are within the critical habitat of the endangered whooping crane. This segment has been addressed under a separate feasibility study for the Aransas National Wildlife Refuge, and is therefore excluded from consideration. Navigational difficulties caused by frequent shoaling at various locations within the remainder of this reach, traffic congestion near Port O'Connor, and the lack of navigational aids and mooring facilities have been previously identified by users as areas of concern. The State of Texas is the non-Federal Sponsor of the GIWW and continues to maintain a high interest in the waterway because of the economic importance of the waterway to the State and their responsibility to provide dredged material disposal areas. The GIWW is designated as part of the Nation's Inland Waterway system, and therefore qualifies for 50-50 cost sharing from the Inland Waterways Trust Fund for construction of navigation improvements. Any potential environmental restoration projects identified by this study will require a cost sharing sponsor. Potential structural solutions may involve channel rerouting across Corpus Christi Bay, widening to relieve traffic congestion at Port O'Connor and Victoria Wye, stabilizing of banks in critical locations to relieve channel shoaling problems, and the coordination and locating mooring facilities for holding vessels during inclement conditions. Other solutions may include restoration of areas previously impacted by project construction or subsequent maintenance activities, restoration of wetland habitat lost as a result of project usage, and dredging of circulation channels between designated dredged material disposal areas.

Fiscal Year 2004 funds are being used to initiate design details, plan selection, construction costs, and to prepare the draft engineering appendix and environmental assessment. Fiscal Year 2005 funds will be used to continue preparation of the engineering appendix and environmental assessment for inclusion in the Feasibility Report. The project is designated as part of the inland waterways. No feasibility cost sharing agreement is required, and all study costs are 100 percent Federal. The completion date for the feasibility phase of the study is to be determined.

SUBTOTAL PROJECT REVIEW STUDIES	11,050,000	6,214,000	495,000	500,000	3,841,000
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APPROPRIATION TITLE: General Investigations, Fiscal Year 2005

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2004	Allocation FY 2004	Tentative Allocation FY 2005	Additional To Complete After FY 2005
	\$	\$	\$	\$	\$
TOTAL SURVEYS - CONTINUING	100,460,000	36,119,000	5,801,000	9,049,000	49,491,000
TOTAL SURVEYS	101,530,000	36,805,000	5,952,000	9,226,000	49,547,000

APPROPRIATION TITLE: General Investigations, Fiscal Year 2005

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2004	Allocation FY 2004	Tentative Allocation FY 2005	Additional To Complete After FY 2005
	\$	\$	\$	\$	\$

3. PRECONSTRUCTION ENGINEERING AND DESIGN ACTIVITIES (PED) - NEW

- a. Environmental: None.
- b. Navigation: None.
- c. Flood Control: None.
- d. Shoreline Protection: None.
- e. Special Studies: None.

4. PRECONSTRUCTION ENGINEERING AND DESIGN (PED) - CONTINUING

- a. Environmental: None.

b. Navigation: The amount of \$2,115,000 is requested for Fiscal Year 2005 to continue PED activities on three projects.

Texas

Cedar Bayou	645,000	0	180,000	135,000	330,000
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Cedar Bayou is a small coastal stream that originates in Liberty County, Texas, east of Houston. It is navigable on the north end just below the Highway 146 bridge at mile 11 and meanders south along the eastern portion of the City of Baytown, Texas to Mile 3.0, at the intersection of the Houston Ship Channel (HSC). The Federally maintained section extends from its junction with the Houston Ship Channel near mile 3.0, eastward across Galveston Bay, to the mouth of Cedar Bayou to mile 3.0. The feasibility study is being prepared by the Local Sponsor in accordance with Section 203 of the WRDA 1986 (Public Law 99-662), and is to be completed in April 2004. The non-Federal sponsors for the project are the Chambers County Cedar Bayou Navigation District and the Liberty County Navigation District. They have expressed an interest in extending the project from Mile 3.0 to a point upstream to mile 11.0. One of the major industries, the Bayer Company, is proposing a \$1 billion expansion that will require enlargement of the navigation channel up to mile 11.0. The non-federal sponsors are also interested in bend easing to make navigation in the channel safer and more efficient. The recommended project, estimated to cost \$16.2 million with an estimated Federal cost of \$12.9 million and an estimated non-Federal cost of \$3.4 million,

APPROPRIATION TITLE: General Investigations, Fiscal Year 2005

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2004	Allocation FY 2004	Tentative Allocation FY 2005	Additional To Complete After FY 2005
	\$	\$	\$	\$	\$

Texas (continued)

Cedar Bayou (continued)

includes the deepening and widening of the channel from mile 3.0 to mile 11. The average annual benefits amount to \$3.1 million. The benefit-cost ratio is 2.6 to 1 based on the latest economic analysis found in the preliminary draft Feasibility Report prepared by the non-Federal Sponsor dated February 2001. The non-Federal sponsor is fully aware and supports the required concurrent cost sharing of Preconstruction Engineering and Design phase of the project.

Preconstruction Engineering and Design (PED) costs will ultimately be cost shared at the rate for the project to be constructed but will be financed through the PED period at 25% non-Federal cost. Any adjustments that may be necessary to bring the non-Federal contribution in line with the project cost sharing will be accomplished in the first year of construction.

Total Estimated Preconstruction		Total Estimated Preconstruction	
Engineering and Design Costs	\$ 860,000	Engineering and Design Costs	\$ 860,000
Initial Federal Share	\$ 645,000	Ultimate Federal Share	\$ 775,000
Initial Non-Federal Share	\$ 215,000	Ultimate Non-Federal Share	\$ 85,000

The project is authorized for construction by Section 349 of the Water Resources Development Act of 2000. The non-Federal Sponsor is required to provide lands, easements, and rights of way; and modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary, for the project. During the period of construction, the non-Federal Sponsor is required to pay 10 percent of the cost of the general navigation features of the project, and pay an additional 10 percent payment of the cost of the general navigation features of the project over a period not to exceed 30 years following completion of the project.

Fiscal Year 2004 funds will be used to finalize the feasibility report for approval by higher authority. Fiscal Year 2005 funds are being used to initiate design and preparation of the plans and specifications for the project. Completion of the feasibility study is scheduled for July 2004. Preconstruction Engineering and Design is to be determined.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2005

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2004	Allocation FY 2004	Tentative Allocation FY 2005	Additional To Complete After FY 2005
	\$	\$	\$	\$	\$

Texas (continued)

Corpus Christi Ship Channel	1,377,000	30,000	262,000	800,000	285,000
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The Corpus Christi Ship Channel is a federally constructed deep-draft navigation project serving the ports at Harbor Island, Ingleside, and Corpus Christi in Nueces County. The existing project consists of approximately 35 miles of channels: a jettied entrance channel 45 to 47 feet deep and 600 to 700 feet wide from the Gulf of Mexico; the Corpus Christi Ship Channel with a depth of 45 feet and a width of 400 feet; and a branch channel referred to as the La Quinta Channel with a depth of 45 feet and a width of 300 feet. Tonnage transported on the Corpus Christi Ship Channel totaled approximately 78 million tons in 1994 and averaged 64 million tons over the past five years. Non-Federal interests desire that the existing channel be widened to 500 feet, and deepened to 50 feet for use by larger vessels, resulting in more efficient movement of commodities and, therefore, decreased shipping costs. The existing 45-foot project was designed to accommodate 59,000 dead weight ton (DWT) vessels with a loaded draft of 41 feet; however, large vessels of 100,000 DWT and greater, regularly use the channel. These larger vessels could be loaded to greater depths, offering substantial reductions in vessel operating costs if additional channel depth and width were available. Channel widening would allow for more efficient vessel movements, resulting in reduced traffic delays and increased traffic safety. The feasibility report was completed in April 2003. The recommended project, estimated to cost \$138.6 million with an estimated Federal cost of \$75.9 million and an estimated non-Federal cost of \$62.7.8 million, includes deepening the main channel to 52 feet and widening to 530 feet, and extending the La Quinta Channel one and a half miles at a depth of 39 feet. The average annual benefits amount to \$53.7 million. The benefit-cost ratio is 3.3 to 1 based upon the latest economic analysis dated February 2, 2001. The non-Federal sponsor for the project is the Port of Corpus Christi Authority. Preconstruction Engineering and Design (PED) will ultimately be cost shared at the rate for the project to be constructed and will be financed through the PED period at 25% non-Federal. Any adjustments that may be necessary to bring the non-Federal contribution in line with the project cost sharing will be accomplished in the first year of construction.

Total Estimated Preconstruction		Total Estimated Preconstruction	
Engineering and Design Costs	\$1,836,000	Engineering and Design Costs	\$1,836,000
Initial Federal Share	\$1,377,000	Ultimate Federal Share	\$1,377,000
Initial Non-Federal Share	\$ 459,000	Ultimate Non-Federal Share	\$ 459,000

Fiscal Year 2004 funds are being used to execute a Design agreement and initiate the first set of plans and specifications. Fiscal Year 2005 funds will be used to complete activities associated with the first set of plans and specifications. The scheduled completion date for Preconstruction Engineering and Design is to be determined.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2005

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2004	Allocation FY 2004	Tentative Allocation FY 2005	Additional To Complete After FY 2005
	\$	\$	\$	\$	\$

Texas (continued)

Texas City Channel (50-Foot Project)	12,585,000	2,394,000	525,000	1,180,000	8,486,000
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The project is located in Galveston Bay and serves the petrochemical industry to Texas City, Texas, which lies 10 miles northwest of Galveston and 35 miles southeast of Houston. In 2001, the Port of Texas City handled over 62 million short tons of product and was ranked the ninth largest port in the U.S. The Texas City Channel is a 7.3-mile long deep draft channel extending from Bolivar Roads in Galveston Bay to Texas City, Texas. The channel has a protective rubble-mound dike, 28,200 feet long along the northerly side of the channel. The project supported by the non-Federal sponsor calls for deepening the Texas City Turning Basin and the Texas City Channel to 45 feet but maintaining the present channel and turning basin width. The benefit-cost ratio for this improvement is 8.3 to 1 as an individual modification based on October 1988 price levels and 7 5/8 percent interest rate. The Port of Texas City is essentially a crude oil importing facility, and development of a deeper channel has been a high priority of the local sponsor and the users since the oil crisis of the mid-1970's. The City of Texas City, Texas is the sponsor for the project. By letter, dated March 1997, the City of Texas City indicated a renewed interest, financial support, and a willingness to cost share construction of the project.

The project is authorized for construction by the Water Resources Development Act (WRDA) of 1986. This would result in a non-Federal contribution of 25 percent of project construction costs (including design) for the depth up to 45 feet. In addition, the non-Federal sponsor would be responsible for lands, easements, rights-of-way, and relocations; and pay an additional 10 percent payment of the cost of the general navigation features of the project over a period not to exceed 30 years following completion of the project.

Fiscal Year 2004 funds are being used to initiate reevaluation and environmental studies. Fiscal Year 2005 funds will be used to continue with reevaluation and environmental studies. The completion date for the Preconstruction Engineering and Design phase is to be determined.

SUBTOTAL CONTINUING NAVIGATION	14,607,000	2,424,000	967,000	2,115,000	9,101,000
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APPROPRIATION TITLE: General Investigations, Fiscal Year 2005

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2004	Allocation FY 2004	Tentative Allocation FY 2005	Additional To Complete After FY 2005
	\$	\$	\$	\$	\$

c. Flood Control: The amount of \$640,000 is requested for Fiscal Year 2005 to continue PED activities on one project, and to complete PED on one project.

Texas

Greens Bayou, Houston	8,695,000	7,847,000	508,000	340,000	0
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Greens Bayou, excluding its tributary of Halls Bayou, drains about 154 square miles in the north central area of the Buffalo Bayou watershed. The area is subject to rainstorms throughout the year and urban flooding is a common occurrence. About 10,967 homes and businesses are currently subject to flooding by the Standard Project Flood (SPF), and about 7,100 of these properties would be subject to flooding by a 100-year frequency flood. On an average annual basis, stream flooding could cause about \$17,800,000 in damages per year to existing properties. The authorized plan for Greens Bayou include 25 miles of channel improvements, 14 miles of selective clearing, acquisition of flood-prone properties, and 4 flood detention basins. Aesthetic vegetation would be included to improve environmental quality, and mitigation would be required to compensate for the loss of 48 acres of riparian fish and wildlife habitat, and for 194 acres of upland forest wildlife habitat. Recreation features incorporated into the plan include trails, picnic facilities, sports fields, canoe launching ramps, comfort stations and parking areas. The total first cost of the recommended plan, based on October 2000 price levels, is estimated at \$274,320,000, with a Federal cost of \$172,226,000 and a non-Federal cost of \$102,094,000. The average annual benefits are estimated at \$61,722,100 for flood control, and \$1,901,800 for recreation. The benefit-cost ratio is 4.8 to 1 based upon the latest economic analysis dated August 1993 with cost updated to October 2000. The local sponsor, Harris County Flood Control District, does not support the authorized plan due to the extensive mitigation requirements and heightened sensitivity to environmental needs. A reevaluation of the project scope was requested to formulate a smaller project with reduced environmental impacts. The new plan recommended consists of 3.2 miles of channel improvement in the upper reaches of the watershed, a detention basin at the downstream terminus of the channel improvements. There are no non-structural components in the new plan. The structural flood damage reduction features are estimated to provide a ten-year level of protection, at a cost of approximately \$43.1 million. The local sponsor for the project is the Harris County Flood Control District (HCFCD), a certified agent of the Harris County Commissioners Court in Texas. The HCFCD is a willing and viable local sponsor, and the cost sharing partner on three major flood control projects, Brays Bayou, Clear Creek, and Sims Bayou, Texas, which are currently under construction.

The Water Resources Development Act of 1990 authorizes this project for construction. The cost sharing for construction of the project will be in accordance with Section 103 of the Water Resources Development Act of 1986, as amended. Local interests will be required to provide lands, easements, rights-of-way and borrow and excavated or dredged material disposal areas, modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities necessary in the construction of the project; pay five percent of the costs allocated to structural flood control in cash during the period

APPROPRIATION TITLE: General Investigations, Fiscal Year 2005

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2004	Allocation FY 2004	Tentative Allocation FY 2005	Additional To Complete After FY 2005
	\$	\$	\$	\$	\$

Texas (continued)

Greens Bayou, Houston (continued)

of construction; contribute an additional amount in cash or credits to bring the total non-federal share of costs allocated to structural flood control to a minimum of 25 percent; pay fifty percent of the costs allocated to construction of the recreation facilities, and bear all costs of operation, maintenance, repair, replacement, and rehabilitation of the structural flood control and recreation facilities.

Fiscal Year 2004 funds are being used to complete General Reevaluation studies in June 2004, and to initiate design leading to preparation of first set of Plans and Specifications for construction. Fiscal Year 2005 funds will be used to complete Preconstruction, Engineering and Design phase in September 2005.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2005

Southwestern Division

Study	Total Estimated Federal Cost	Allocation Prior To FY 2004	Allocation FY 2004	Tentative Allocation FY 2005	Additional To Complete After FY 2005
	\$	\$	\$	\$	\$

Texas (continued)

Raymondville Drain	7,200,000	1,056,000	426,000	300,000	5,418,000
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The Raymondville channel provides a drainage outlet to the Laguna Madre for a large area in eastern Hidalgo and northern Willacy Counties. The flows of floodwaters in the basin are impeded by the relatively flat topography, inadequate drainage structures, irrigation canals that crisscross the area in every direction and the lack of adequate outlets. Floodwaters inundate large agricultural areas, improved pastures, and urban areas for long periods, resulting in extensive damage to crops, properties, and structures. Floodwaters block transportation arteries causing interruption of economic activities, tourism, school attendance, and utility services. Flooding of sanitation facilities occurs periodically in many communities, contaminating water supplies resulting in health and safety problems to area residents. The area is subject to flooding from long-term accumulations of moderate rainfall as well as from torrential rainfall associated with tropical storms. Hurricane Beulah (1967), one of the largest in the history of the area, dumped more than 30 inches of rain in the Valley and caused approximately \$131,500,000 (1 October 1998 price levels) in damages in Cameron, Hidalgo, and Willacy Counties. The authorized plan provides improvements by enlarging existing channels, and constructing new channels, a total of 43.8 miles of channel work. The City of Raymondville would receive flood protection against a 100-year storm. Additional flood protection features in Hidalgo County in the vicinity of Edinburg, Texas. Features will include new channels, enlarging existing channels, and retention areas. The local sponsor, the Hidalgo County Drainage District No. 1, supports the project, and has confirmed by letter dated 12 September 1994 and in April 2001 their willingness to cost share project construction. The local sponsor has requested the project be reformulated to provide protection to portions of Hidalgo County, in the vicinity of Edinburg, Texas. The local sponsor is performing the feasibility study and design for the Hidalgo County portion. This is an element of the Lower Rio Grande Basin project, which was authorized for construction by the Water Resources Development Act of 1986. The cost sharing for construction of the project will be in accordance with Section 103(a)(2) of the Water Resources Development Act of 1986, as amended. Local interests will be required to provide lands, easements, rights-of-way and borrow and excavated or dredged material disposal areas, modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities where necessary in the construction of the project; pay five percent of the costs allocated to flood control in cash during the period of construction; contribute an additional amount in cash or credits to bring the total non-federal share of costs allocated to structural flood control to a minimum of 25 percent; and bear all costs of operation, maintenance, repair, replacement, and rehabilitation of the flood control facilities. The authorized project is dependent on implementation of lateral and on-farm drainage improvements to fully realize agricultural benefits and environmental protection. These improvements will be built during the economic life of the project. Continuing private investment is providing the on-farm improvements. Fiscal Year 2004 funds are being used to continue reevaluation studies of various alternatives for flood control. Fiscal Year 2005 funds will be used to complete preliminary analysis and develop a recommended plan for the project. The scheduled completion date for Preconstruction, Engineering and Design is to be determined.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2005

Southwestern Division

Study	Total Estimated Federal Cost \$	Allocation Prior To FY 2004 \$	Allocation FY 2004 \$	Tentative Allocation FY 2005 \$	Additional To Complete After FY 2005 \$
SUBTOTAL CONTINUING FLOOD CONTROL	15,895,000	8,903,000	934,000	640,000	5,418,000
d. <u>Shoreline Protection</u> : None.					
e. <u>Multiple Purpose</u> : None.					
TOTAL PRECONSTRUCTION ENGINEERING AND DESIGN ACTIVITIES (PED) CONTINUING	30,502,000	11,327,000	1,901,000	2,755,000	14,519,000
TOTAL PRECONSTRUCTION ENGINEERING AND DESIGN ACTIVITIES (PED)	30,502,000	11,327,000	1,901,000	2,755,000	14,519,000
GRAND TOTAL - SURVEYS AND PRECONSTRUCTION ENGINEERING AND DESIGN ACTIVITIES	132,032,000	48,132,000	7,853,000	11,981,000	64,066,000

APPROPRIATION TITLE: Construction, General - Channels and Harbors (Navigation)

PROJECT: Brazos Island Harbor, Brownsville Ship Channel (55-Foot Project), TX (Continuing)

LOCATION: The project is located on the south Texas coast in Cameron County, near the United States and Mexican border.

DESCRIPTION: The project provides for enlarging the existing Brownsville Ship Channel by deepening the entrance and jetty channel (2 miles), the lower section of the main channel (9 miles) to 55 feet and the upper section of the main channel (7 miles) and turning basin to 45 feet.

AUTHORIZATION: Consolidated Appropriations Act, 2003, P.L. 108-7 (Bahia Grande Credit). Remainder of project not authorized.

REMAINING BENEFIT-COST RATIO: Undetermined at this time.

TOTAL BENEFIT-COST RATIO: Undetermined at this time.

BASIS OF BENEFIT-COST RATIO: Not available.

Division: Southwestern

District: Galveston

Project: Brazos Island Harbor
Brownsville Ship Channel
(55-Foot Project), Texas

2 February 2004

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SUMMARIZED FINANCIAL DATA

Estimated Federal Cost	\$ 89,700,000
Estimated Non-Federal Cost (Sponsor)	118,500,000
Cash Contributions	\$ 68,500,000
Other Costs:	
Lands	10,000,000
Relocations	
Pipelines (50%)	40,000,000
Credit	0
Total Estimated Project Cost	\$ 208,200,000

ACCUM. PCT. OF EST FED. COST	STATUS (1 Jan 2004)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
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Entire Project	0	To Be Determined
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PHYSICAL DATA

Channels:

Main Ship Channel - 18.0 miles
Upper Turning Basin - 1.2 miles

Allocations to 30 September 2003	\$ 0
Conference Allowance for FY 2004	0
Allocation for FY 2004	0
Allocations through FY 2004	0
Allocation Requested for FY 2005	9,500,000
Programmed Balance to Complete	
After FY 2005	80,200,000
Unprogrammed Balance to Complete	
After FY 2005	0

Division: Southwestern

District: Galveston

Project: Brazos Island Harbor
Brownsville Ship Channel
(55-Foot Project), Texas

2 February 2004

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JUSTIFICATION: The total project will be designed to provide net benefits that result from transportation savings using larger or more efficient vessels, reduction in vessel casualties, and reduction of vessel delays.

Annual Benefits	Amount
Navigation:	
To Be Determined during Feasiblity Phase	

FISCAL YEAR 2005: Funds of \$9,500,000 will be available for future construction activities upon authorization and determination by the Assistant Secretary of the Army (Civil Works) and by OMB under executive order 12322 that the project is justified:

Total	\$9,500,000
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NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, as amended, the non-Federal sponsor must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, rights-of-way, and borrow and excavated or dredged material disposal areas.	\$ 10,000,000	
Modify or relocate, utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	40,000,000	
Pay a percentage of the costs allocated to navigation improvements, to mitigate the project's adverse environmental impacts, and to pay a portion of the cost of operation, maintenance, and replacement of the project.	68,500,000	\$2,870,000
General Navigation Features - 55 feet (50%) General Navigation Features - 45 feet (25%)	\$57,900,000 10,600,000	
Total Non-Federal Costs	\$118,500,000	\$2,870,000

STATUS OF LOCAL COOPERATION: The Project Cooperation Agreement with the Brownsville Navigation District will be developed during Preconstruction Engineering and Design.

Division: Southwestern

District: Galveston

Project: Brazos Island Harbor
Brownsville Ship Channel
(55-Foot Project), Texas

2 February 2004

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COMPARISON OF FEDERAL COST ESTIMATES: The current Federal (Corps of Engineers) cost estimate of \$89,700,000 has not previously been presented to Congress.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Final Environmental Impact Statement (FEIS) will be developed during the Feasibility Phase.

OTHER INFORMATION: The Feasibility Phase studies will address the potential to include work accomplished by the Navigation District in restoring the Bahia Grande as potential mitigation features for the potential future deepening project.

Section 113 of the Consolidated Appropriations Act, 2003 (P.L. 108-7) states "In satisfaction of any normal requirement for mitigation identified by the pending Environmental Impact Study for the deepening of the Brownsville Navigation Channel, Texas, the Secretary of the Army, acting through the Chief of Engineers, shall provide credit to the Brownsville Navigation District for work performed before the completion of the Environmental Impact Study to restore the wetlands at Bahia Grande, Lower Laguna Madre, and Vadia Ancha. Such credit shall be at a ratio determined by the Secretary, considering the environmental value of the wetlands impacted by the project and the environmental value of the restored wetlands. The Secretary shall provide credit for work only if the Secretary determines such work integral to the project." While the Act authorized credit to the Brownsville Navigation District for work performed, the remainder of the project is not currently authorized for construction.

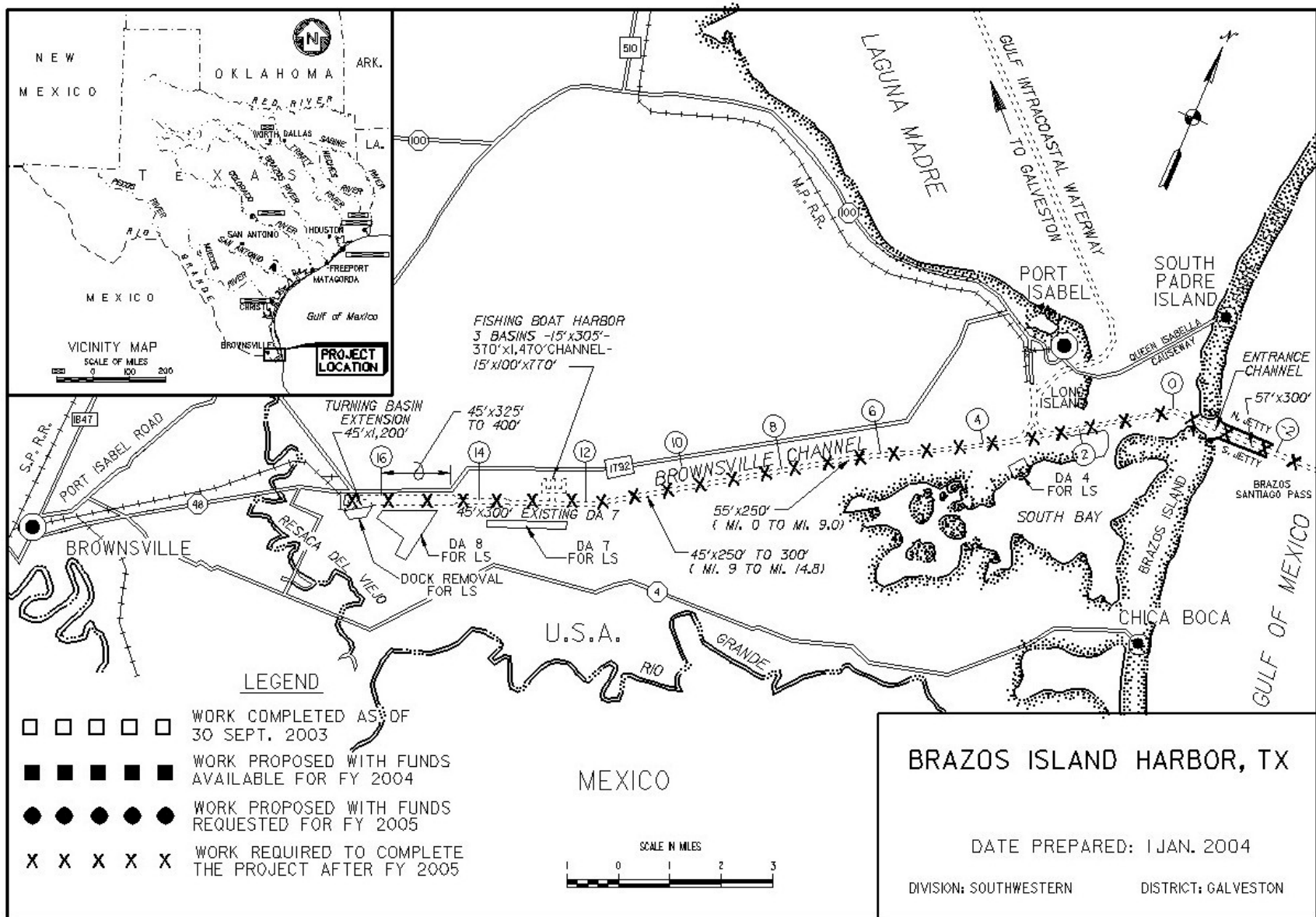
Division: Southwestern

District: Galveston

Project: Brazos Island Harbor
Brownsville Ship Channel
(55-Foot Project), Texas

2 February 2004

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Division: Southwestern

District: Galveston

Project: Brazos Island Harbor
Brownsville Ship Channel
(55-Foot Project), Texas

2 February 2004

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APPROPRIATION TITLE: Construction, General - Channels and Harbors (Navigation)

PROJECT: Houston-Galveston Navigation Channels, TX (Continuing)

LOCATION: The project is located in the Galveston Bay system in Harris and Galveston Counties, Texas.

DESCRIPTION: The total project provides for a 45-foot project by enlarging the Houston Ship Channel to a depth of 45 feet and a width of 530 feet, and the Galveston Channel to a depth of 45 feet over a width which varies between 650 and 1112 feet, and deepening the entrance channel to the Galveston Harbor and Channel to 47 feet over its original 800-foot width and 10.5 mile length, and extending the channel an additional 3.9 miles to the 47-foot bottom contour in the Gulf of Mexico along the existing alignment. Dredged material from the bay will be used for construction of environmental restoration sites to include 4,250 acres of marsh, and 6 acres of bird island. Also, approximately 172 acres of oyster cultch (118 acres for the Main Channel and 54 acres for the Barge Lanes) will be placed to provide substrate for oysters to grow.

AUTHORIZATION: Water Resources Development Act (WRDA) of 1996. Energy and Water Development Appropriations Act, 2001, as enacted by Section 1(a)(2) of P.L. 106-377 (Barge lanes).

REMAINING BENEFIT-COST RATIO: 5.0 to 1 at 7 5/8 percent.

TOTAL BENEFIT-COST RATIO: 1.7 to 1 at 7 5/8 percent. (Authorized Project with Barge Lanes)

INITIAL BENEFIT-COST RATIO: 1.8 to 1 at 7 5/8 percent. (FY 1996)

BASIS OF BENEFIT-COST RATIO: Benefits and costs are from the Limited Reevaluation Report and Supplemental Environmental Statement approved by HQUSACE in May 1996.

Division: Southwestern

District: Galveston

Project: Houston-Galveston
Navigation Channels, Texas

2 February 2004

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SUMMARIZED FINANCIAL DATA		ACCUM. PCT. OF EST FED. COST	STATUS (1 Jan 2004)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Appropriation Requirement (CoE)	520,035,000		Entire Project	75	To Be Determined
Programmed Construction	520,035,000				
Unprogrammed Construction	0				
 Estimated Appropriation Requirement(OFA)	 4,268,000				
Programmed Construction	4,268,000				
Unprogrammed Construction	0				
 Estimated Appropriation Requirement	 524,303,000				
Programmed Construction	524,303,000				
Unprogrammed Construction	0				
 Future Non-Federal Reimbursement	 30,050,000				
Programmed Construction	30,050,000				
Unprogrammed Construction	0				
 Estimated Federal Cost (Ultimate) (CoE)	 494,253,000				
Programmed Construction	494,253,000				
Unprogrammed Construction	0				
 Estimated Non-Federal Cost	 180,927,000				
Programmed Construction	180,927,000				
Cash Contributions	147,499,000				
Other Costs:					
Berthing Facilities	9,909,000				
Lands and Relocations	1,121,000				
Credit	22,398,000				
Unprogrammed Construction	0				
Cash Contributions	0				
Other Costs	0				
Total Estimated Programmed Construction Cost	705,230,000				
Total Estimated Unprogrammed Construction Cost	0				
Total Estimated Project Cost	705,230,000				

PHYSICAL DATA - Total Project

Channels:

Houston Ship Channel - 39.2 miles
Galveston Channel - 3.8 miles
Galveston Harbor Channel - 14.4 miles
Barge Lanes - 26 miles
Beneficial use of Dredged Material
Marsh - 4,250 acres
Bird Island - 6 acres
Redfish Island - 6 acres
Offshore Underwater Berm
Mitigation (Oyster Cultch)
Main Channel - 118 acres
Barge Lanes - 54 acres

Division: Southwestern

District: Galveston

**Project: Houston-Galveston
Navigation Channels, Texas**

2 February 2004

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SUMMARIZED FINANCIAL DATA (Continued)		ACCUM. PCT. OF EST FED. COST	STATUS (1 Jan 2004)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Allocations to 30 September 2003	\$ 218,915,000				
Conference Allowance for FY 2004	35,500,000				
Allocation for FY 2004	27,434,000 <u>1/</u>				
Allocations through FY 2004	246,349,000	47%			
Allocation Requested for FY 2005	18,000,000	51%			
Programmed Balance to Complete after FY 2005	255,686,000 <u>2/</u>				
Unprogrammed Balance to Complete after FY 2005	0				

1/ Reflects \$7,856,000 reduction assigned as savings and slippage and \$210,000 rescinded in accordance with the Consolidated Appropriations Bill, 2004.

2/ Includes \$194,648,000 for deferred construction of environmental restoration sites.

JUSTIFICATION: The total project will include environmental restoration and will provide transportation savings from using larger or more efficient vessels, reduction in vessel casualties, and reduction of vessel delays. The average annual benefits for the Houston-Galveston project are \$87,300,000, all commercial navigation, based on October 1994 price levels.

Annual Benefits	Amount
Navigation	\$ 87,300,000
Total	\$ 87,300,000

Division: Southwestern

District: Galveston

Project: Houston-Galveston
Navigation Channels, Texas

2 February 2004

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FISCAL YEAR 2005: Funds in the amount of \$18,000,000 will be used in FY 05 as follows:

Continue Construction	\$16,500,000
Federal Review of Land Acquisition	5,000
Cultural Resources	300,000
Planning, Engineering, and Design	300,000
Construction Management	895,000
 Total	 \$18,000,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, as amended, the non-Federal sponsor must comply with the requirements listed below:

	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Requirements of Local Cooperation		
Provide lands, easements, rights-of-way, and borrow and excavated or dredged material disposal areas.	\$ 1,061,000	
 Modify or relocate, utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	 60,000	
 Local service facilities necessary to realize benefits of the general navigation features	 9,909,000	
 Pay a percentage of the costs allocated to navigation improvements, to mitigate the project's adverse environmental impacts, and to pay a portion of the cost of operation, maintenance, and replacement of the project.	 169,897,000	 \$604,000
 General Navigation Features - Deep Draft	 \$73,201,000	
General Navigation Features - Shallow Draft	1,724,000	
Environmental Restoration	30,090,000	
Environmental Restoration - Deferred Const.	64,882,000	

Division: Southwestern

District: Galveston

**Project: Houston-Galveston
Navigation Channels, Texas**

NON-FEDERAL COST (Continued):

Reimburse an additional 10 percent of the costs of general navigation features allocated to commercial navigation within a period of 30 year following completion of construction, as partially reduced by a credit allowed for the value of lands, easements, rights of way, relocations, and dredged or excavated material disposal areas provided for navigation.	30,050,000
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Total Non-Federal Costs	\$210,977,000	\$604,000
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STATUS OF LOCAL COOPERATION: The Project Cooperation Agreement with the Port of Houston Authority was executed on 10 June 1998. Houston and Harris County voters approved a \$130 million Port of Houston bond issued on 7 November 1989, by a 63 percent to 37 percent margin. The City of Galveston expressed their support for the total project by letters dated January 1987 and 30 October 1995. The Project Cooperation Agreement with the Port of Galveston has been tentatively scheduled for September 2005.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal (Corps of Engineers) cost estimate of \$520,035,000 is a decrease of \$13,735,000 from the latest estimate (\$533,770,000) presented to Congress (FY 2004). This change includes the following items.

Item	Amount
Post Contract Award and Other Estimating Adjustments	\$ (-) 18,313,000
Price Escalation on Construction Features	4,578,000
Total	\$ (-) 13,735,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Final Environmental Impact Statement (FEIS) was filed with the Environmental Protection Agency in 25 November 1988. A supplement to the FEIS has been prepared and was listed in the Federal Register on 24 November 1995. A Post Authorization Change Report was completed and identifies that 54 acres of oyster reef will be impacted by the barge lanes construction and equal amounts of reef will be constructed.

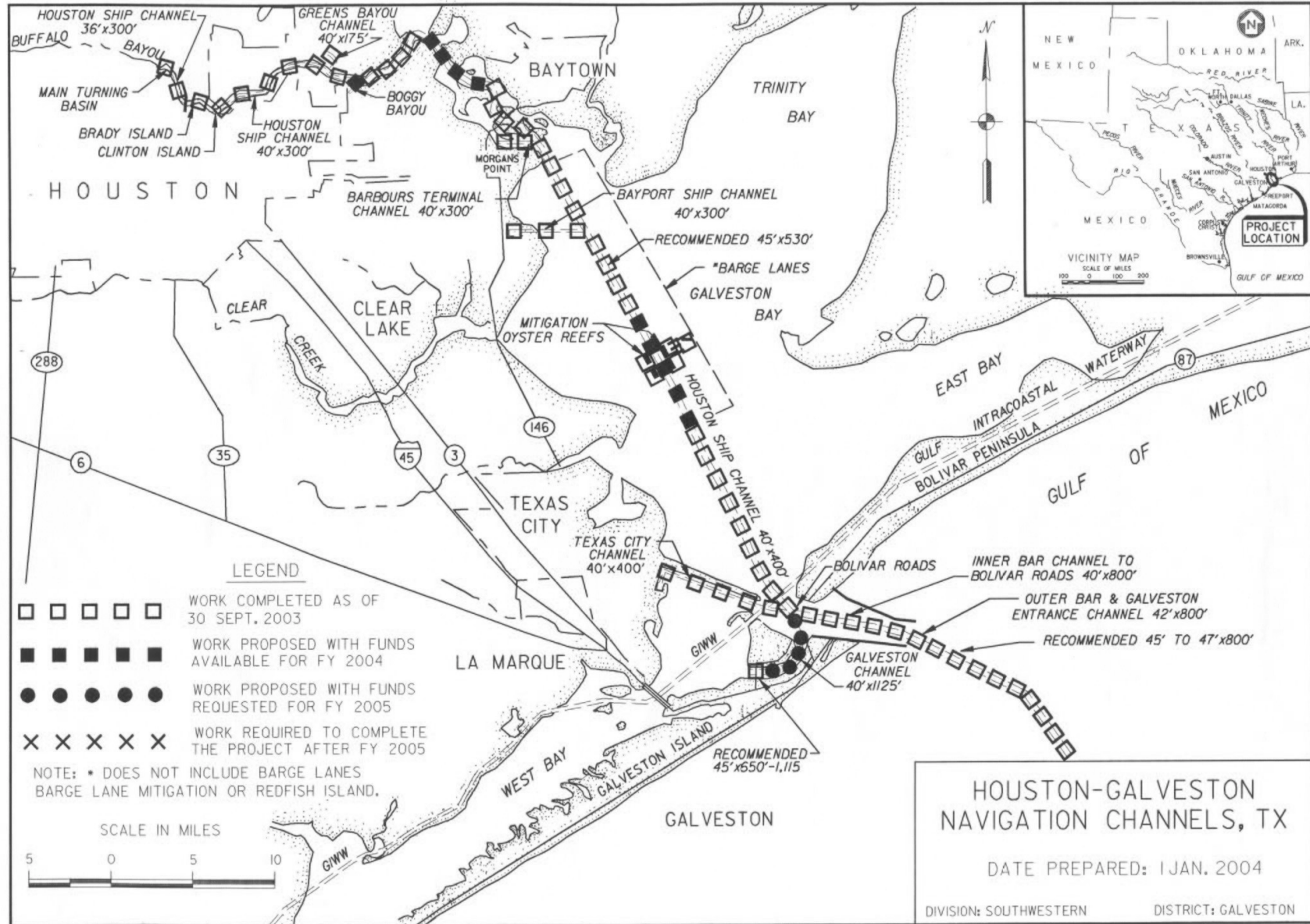
OTHER INFORMATION: The total project as authorized by WRDA 96 included channel deepening of the Galveston Entrance Channel, Galveston Harbor and Channel and the Houston Ship Channel to Boggy Bayou in Houston, Texas.

Funds to initiate preconstruction planning were appropriated in Fiscal Year 1990. Funds to initiate construction were appropriated in Fiscal Year 1998.

Division: Southwestern

District: Galveston

Project: Houston-Galveston
Navigation Channels, Texas



Division: Southwestern

District: Galveston

Project: Houston-Galveston
Navigation Channels, Texas

2 February 2004

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APPROPRIATION TITLE: Construction, General - Locks and Dams (Navigation)

PROJECT: Montgomery Point Lock and Dam, AR (Continuing)

LOCATION: This project is located in Desha County, Arkansas, on the White River approximately one half mile from the Mississippi River.

DESCRIPTION: The authorized project provides for the improvement of the Arkansas River and its tributaries by the construction of dams and channels to serve navigation, afford additional flood control, produce hydroelectric power, and provide related benefits, such as recreation and wildlife propagation. The navigation feature of the project consists of a 9-foot navigation channel from the Mississippi River to Catoosa, Oklahoma, 15 miles east of Tulsa. The Montgomery Point Lock and Dam will be the first lock and dam on the system.

AUTHORIZATION: River and Harbor Act of 1946.

REMAINING BENEFIT-REMAINING COST RATIO: 1.10 to 1 at 8 percent.

TOTAL BENEFIT-COST RATIO: 1.14 to 1 at 8 percent.

INITIAL BENEFIT-COST RATIO: 1.14 to 1 at 8 percent (FY 1997).

BASIS OF BENEFIT-COST RATIO: Benefits are derived from an evaluation report approved in January 1994 at 1 October 1993 price levels.

SUMMARIZED FINANCIAL DATA		STATUS (1 Jan 2004)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost (CoE)	\$262,000,000	Entire Project	86	To be determined
Estimated Non-Federal Cost	0			
Total Estimated Project Cost	\$262,000,000			

Division: Southwestern

District: Little Rock

Project: Montgomery Point
Lock and Dam, Arkansas

2 February 2004

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SUMMARIZED FINANCIAL DATA (CONTINUED)

		ACCUM PCT OF EST FED COST	
Allocations to 30 September 2003	\$219,770,000	84	
Conference Allowance for 2004	23,500,000		
Allocation for 2004	18,160,000 <u>1/</u>		<u>1/</u> Reflects \$5,201,000 reduction
Allocations through 2004	237,930,000	91	assigned as savings and
			slippage, and \$139,000
Allocation Requested for FY 2005	9,090,000	94	rescinded in accordance with
Programmed Balance to Complete	14,980,000		the Consolidated Appropriations
Unprogrammed Balance to Complete after 2005	0		Bill, 2004.

PHYSICAL DATA

Channels: White River - 9.8 mi, 300' wide, mi 9.8 to 0.0

Locks:	Type - Single Chamber, single lift with miter gates	Normal (maximum) Lift - Varies from 14' for Lock No. 4 to 30' for Lock No. 1.
	Size - 110' X 600' Lift up to 20 feet.	

Dams: Movable navigable type with "bottom" operated gates

Lands and Damages:

Acres: 858

Type: Timber

Improvements: None

Division: Southwestern

District: Little Rock

Project: Montgomery Point
Lock and Dam, Arkansas

2 February 2004

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JUSTIFICATION: The McClellan-Kerr Arkansas River Navigation System was conceived and authorized as an overall plan made up of a group of interrelated elements consisting of lakes, multiple-purpose structures, navigation structures, and bank stabilization works, all designed on a coordinated basis to provide for development of optimum benefits. The project opened for navigation from the Mississippi River to the Port of Tulsa at Catoosa, Oklahoma in 1970. The White River Entrance Channel, the first 10 miles of the McClellan-Kerr Arkansas River Navigation Project, is the only reach in the navigation system where the minimum stage is not controlled by a downstream dam, but by the stages of the Mississippi River. Changes on the Mississippi River have been observed for a number of years and have resulted in low water problems in the White River Entrance Channel. Construction of the Montgomery Point Lock and Dam will greatly increase the reliability of the system as requested by the users. A more reliable system should increase commerce to 35-45 million tons per year. The average annual benefits, based on October 1993 price levels, are as follows:

Annual Benefits	Amount
Navigation	\$20,327,000
Area Redevelopment	700,000
Total	\$21,027,000

FISCAL YEAR 2005: The requested amount will be applied as follows:

Continue Construction of Lock and Dam	\$ 8,199,000
Planning, Engineering and Design	300,000
Construction Management	591,000
Total	\$ 9,090,000

NON-FEDERAL COST: None

STATUS OF LOCAL COOPERATION: Congress has determined that the Inland Waterways Trust Fund will not be used. There are no other cost sharing or repayment requirements applicable to the project.

Division: Southwestern

District: Little Rock

Project: Montgomery Point
Lock and Dam, Arkansas

2 February 2004

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COMPARISON OF FEDERAL (CORPS OF ENGINEERS) COST ESTIMATES: The current Federal cost estimate of \$262,000,000 is the same as the latest estimate (\$262,000,000) submitted to Congress (FY 2004).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The overall navigation system is essentially complete and in operation. The Final Operating and Maintenance Environmental Impact Statement for the McClellan-Kerr Arkansas River Navigation System in the Little Rock District was filed with the Council on Environmental Quality on 6 March 1975. The final Environmental Impact Statement for Tulsa District was filed with the Council on Environmental Quality on 28 July 1975. The final Environmental Impact Statement for the Montgomery Point Lock and Dam was filed with the Environmental Protection Agency on 28 June 1991.

OTHER INFORMATION: The McClellan-Kerr project was authorized by the River and Harbor Act of 1946 and it has been determined the Montgomery Point Lock and Dam was included in the authorization. The real estate estimate includes purchase of 703 acres that will be used to mitigate construction of the Montgomery Point Lock and Dam. Acquisition of land for the lock and dam was completed in FY 1996. The construction contract for the lock and dam was awarded in July 1997.

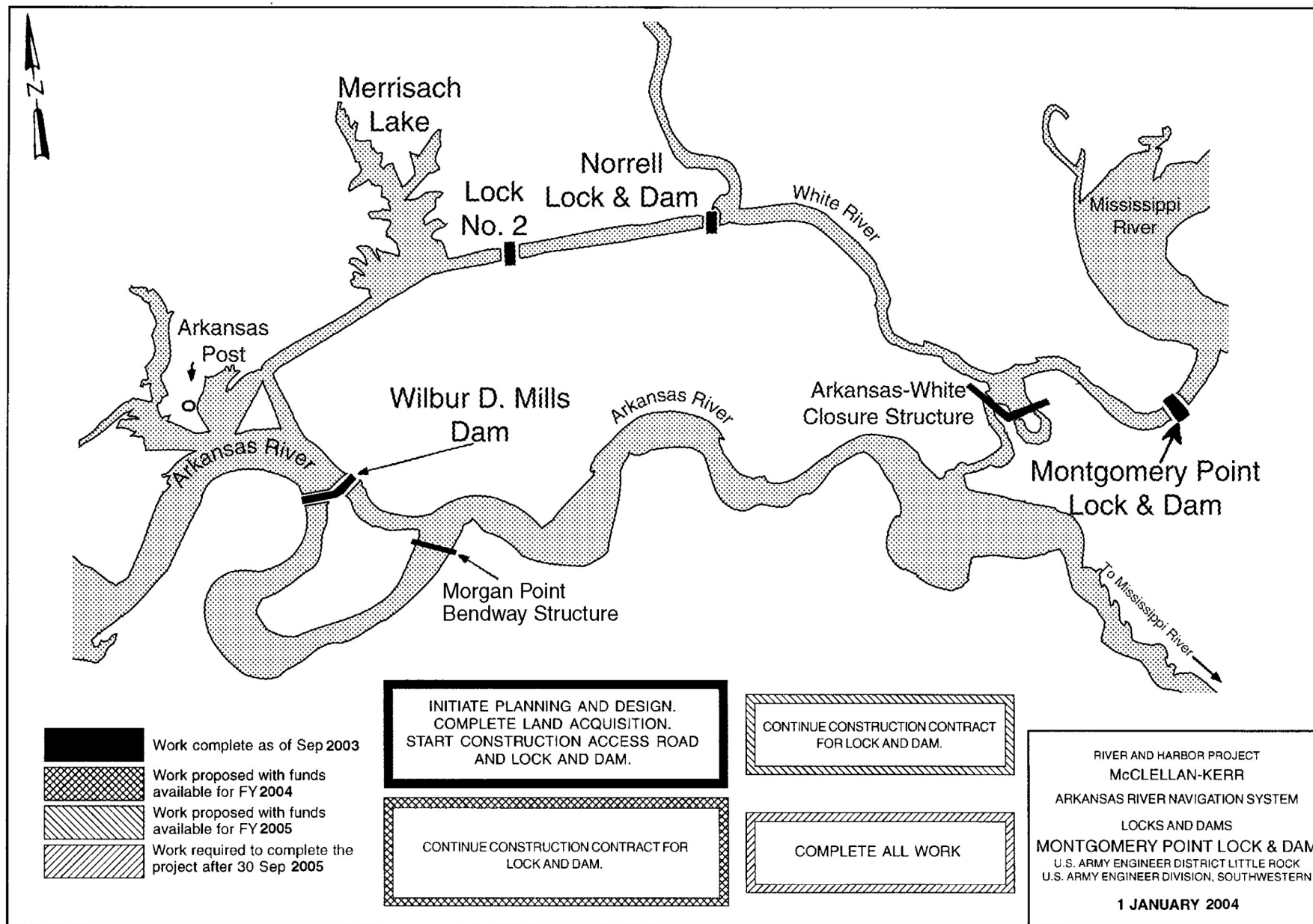
Division: Southwestern

District: Little Rock

Project: Montgomery Point
Lock and Dam, Arkansas

2 February 2004

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Division: Southwestern

District: Little Rock

Project: Montgomery Point
Lock and Dam, Arkansas

2 February 2004

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**ACCUM.
PCT. OF EST.
FED. COST**

SUMMARIZED FINANCIAL DATA (Continued):

Conference Allowance for FY 2004	2,600,000	
Allocation for FY 2004	2,009,000	1/
Allocations through FY 2004	\$ 21,281,000	85
Allocation Requested for FY 2005	1,000,000	4
Programmed Balance to Complete	2,619,000	11
Unprogrammed Balance to Complete after FY 2005	0	

1/ Reflects \$576,000 reduction assigned as savings and slippage and \$15,000 rescinded in accordance with the Consolidated Appropriations Bill, 2004.

JUSTIFICATION: The project will provide protection from periodic floods which have inundated the city numerous times in past years during periods of heavy spring and summer rains and storms. The maximum flood of record, that of 1923 with a 50 year frequency, would have caused an estimated \$59 million in damages at October 1999 prices and conditions of development. Over \$450 million in improvements would be severely impacted by events greater than 45-year on the Arkansas River and 75-year on the Walnut River. Average annual benefits are \$7,980,000, all flood damage prevention, based on January 1994 price levels.

FISCAL YEAR 2005: The requested amount will be applied as follows:

Continue Construction	\$ 604,000
Planning, Engineering & Design	124,000
Construction Management	272,000
 Total	 \$ 1,000,000

Division: Southwestern

District: Tulsa

Project: Arkansas City, Kansas

2 February 2004

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NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below.

	Payments During Construction	Annual Operation, Maintenance, Repair Rehabilitation and Replacement Costs
Requirements of Local Cooperation		
Provide lands, easements, rights-of-way and dredged material disposal areas.	\$1,000,000	
Modify or relocate utilities, roads, bridges (except railroad bridges and other facilities, where necessary in the construction of the project.	100,000	
Section 215 credit for Walnut River levee north of Madison Avenue, which is incorporated into the highway bypass.	3,000,000	
Pay 9.4 percent of the costs allocated to flood control (to bring the total cost share to 25 percent) and bear all cost of operation, maintenance and replacement of flood control facilities.	4,200,000	\$ 92,000
Total Non-Federal Costs	\$8,300,000	\$ 92,000

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

STATUS OF LOCAL COOPERATION: The city of Arkansas City indicated a willingness and capability by signing a resolution of assurance on 15 May 1994, and has since provided a letter of continued support for the project dated 28 December 1999. The Project Cooperation Agreement (PCA) was executed 4 September 1996.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$24,900,000 is an increase of \$1,100,000 from the latest estimate (\$23,800,000) presented to Congress (FY 2004). The change includes the following items:

ITEM	AMOUNT
Post Contract Award and Other Estimating Adjustments	(+)\$1,100,000
Total	(+)\$1,100,000

Division: Southwestern

District: Tulsa

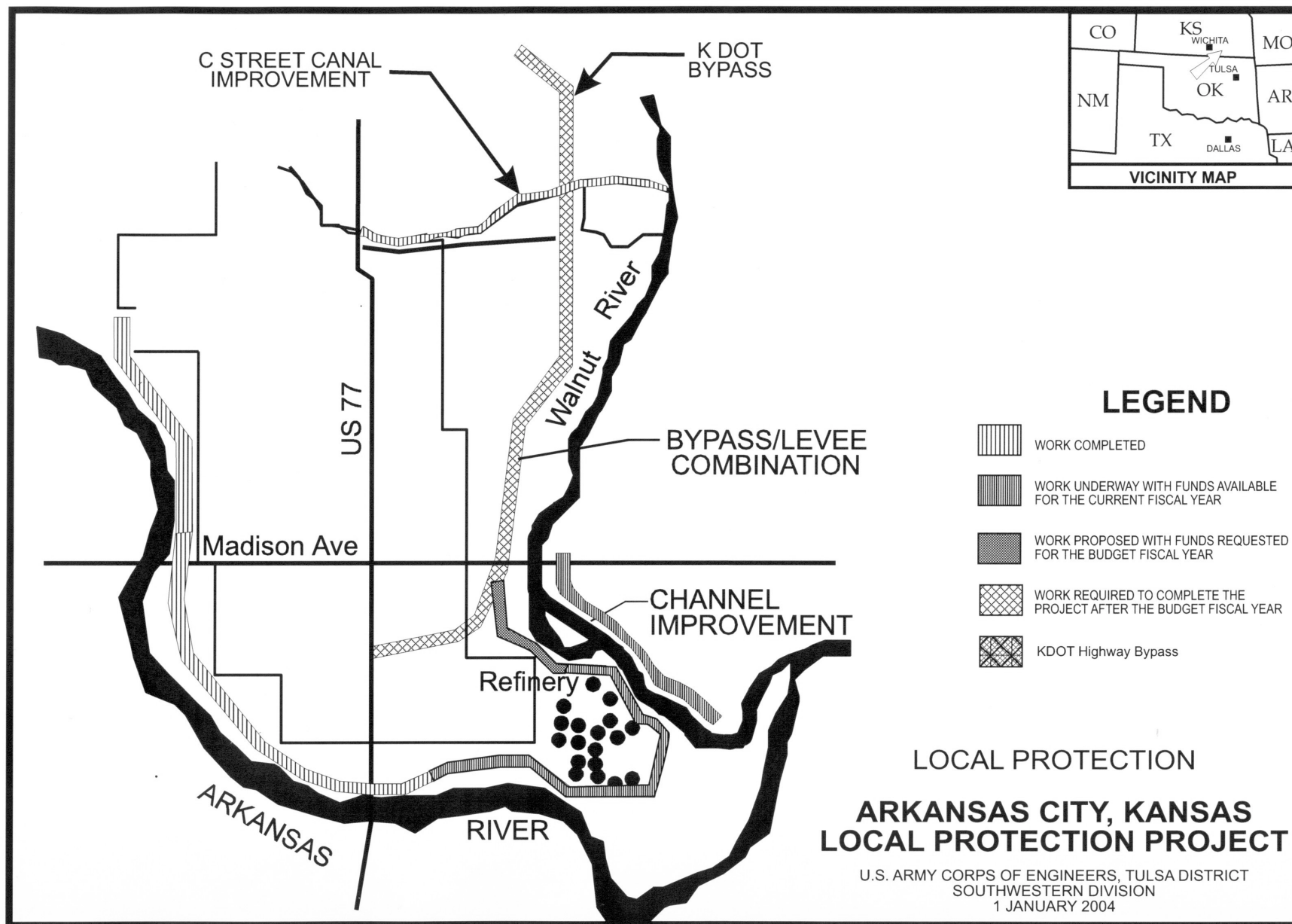
Project: Arkansas City, Kansas

2 February 2004

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STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement was filed with the Environmental Protection Agency in April 1995.

OTHER INFORMATION: Funds to initiate preconstruction, engineering and design were appropriated in FY 1989. Funds to initiate construction were appropriated in FY 1996. Authorization of the project, as set forth in the Water Resources Development Act of 1986, provides that the project also includes the purchase, development, and management of 35 acres of land adjacent to the Kaw Wildlife Management Area. This action would replace the 35 acres of land lost due to the Walnut River channel improvements and development of a 3.3-acre wetland, with a 1.2-acre buffer zone, in borrow area D in the northwest part of the city to mitigate the loss of 2.3 acres of wetlands. The total estimated cost for mitigation at the project is \$75,000 for acquisition of 35 acres of land and \$700,000 to establish a combination of high value woody vegetation and nesting cover on lands secured for mitigation.



Division: Southwestern

District: Tulsa

Project: Arkansas City, Kansas

2 February 2004

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APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

PROJECT: Brays Bayou, Houston, Texas (Continuing)

LOCATION: The project is located in the metropolitan area of Houston, in Harris County, Texas.

DESCRIPTION: The authorized project provided for 3 miles of channel improvements, 3 flood detention basins, 7 miles of stream diversion, and recreation features including hike-and-bike trails, picnic facilities, sports fields, comfort stations and parking areas. As stated in the Water Resources Development Act of 1996, Section 211, subject to the approval of the Secretary of the Army, the non-Federal interest may design and construct an alternative to the diversion component. The recommended plan developed by the sponsor includes all the features of the authorized plan with an alternative to the diversion component that consists of 15.7 miles of earthen channel modifications, replacement and/or lengthening of 27 bridges, and 1,900 acre-feet of stormwater detention on a tributary (Willow Waterhole).

AUTHORIZATION: Water Resources Development Act of 1990.

REMAINING BENEFIT-REMAINING COST RATIO: 1.8 to 1 at 7 5/8 percent.

TOTAL BENEFIT-COST RATIO: 2.97 to 1 at 7 5/8 percent.

INITIAL BENEFIT-COST RATIO: 2.97 to 1 at 7 5/8 percent.

BASIS OF BENEFIT-COST RATIO: Benefits are from the latest economic analysis included in the comprehensive Feasibility Report for Buffalo Bayou and Tributaries, dated July 1990 with October 1989 price levels.

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST	STATUS (1 Jan 2004)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		308,130,000		Upstream Element	32.7%	To Be Determined
Programmed Construction	137,012,000			Downstream Element	0%	To Be Determined
Unprogrammed Construction	171,118,000	1/		Entire Project	18.8%	To Be Determined
Estimated Non-Federal Cost		163,630,000				
Programmed Construction	72,930,000					
Cash Contributions	12,820,000					
Other Costs	60,110,000					
Estimated Non-Federal Cost						
Unprogrammed Construction	90,700,000					
Cash Contributions	13,570,000					
Other Costs	77,130,000					
Total Estimated Programmed Construction Cost	209,942,000					
Total Estimated Unprogrammed Construction Cost	261,818,000					
Total Estimated Project Cost	\$ 471,760,000					
				PHYSICAL DATA		
				Channel:		
				(Upstream Element)		
				Brays Bayou - 3.7 miles		
				Detention Basins - 3		
				(Downstream Element)		
				Brays Bayou - 15.7 miles		
				Detention Basins - 1		
				Bridge replacements/modifications - 27		
				Recreation facilities Hike-and-bike		
				trails with picnic facilities, sports		
				fields, and other day-use facilities.		
Allocations to 30 September 2003	17,923,000					
Conference Allowance for FY 2004	6,000,000					
Allocation for FY 2004	4,637,000	2/				
Allocations through FY 2004	22,560,000		7%			
Allocation Requested for FY 2005	10,000,000		11%			
Programmed Balance to Complete after FY 2005	104,452,000					
Unprogrammed Balance to Complete after FY 2005	171,118,000					

Division: Southwestern

JUSTIFICATION: Brays Bayou drains about 137 square miles in the south-central portion of the Buffalo Bayou watershed. The area is subject to rainstorms throughout the year and urban flooding is a common occurrence. About 53,400 homes and businesses are currently subject to flooding by the Standard Project Flood (SPF), and about 25,000 of these properties would be subject to flooding by a 100-year frequency flood. On an average annual basis, stream flooding could cause nearly \$46,000,000 in damages per year to existing properties. The plan would reduce the existing 100-year frequency floodplain area by about 97 percent. Average annual flood damages would be reduced by about 95 percent. The recreational development will partially satisfy existing demand in the area. Average annual benefits, annualized at a 7-3/8% interest rate and based on October 1989 prices are as follows:

Annual Benefits	Amount
Flood Damage Prevention	\$ 87,268,400
Recreation	1,623,700
Total	\$ 88,892,100

FISCAL YEAR 2005: The total program amount of \$10,000,000 will be applied as follows. Funds will be used to initiate reimbursement to the Sponsor for completed discrete elements of the project in accord with Section 211(f) of Water Resources Development Act of 1996 and an executed Project Cooperation Agreement (PCA).

Partial reimbursement of sponsor for completed work (Discrete Segment #8, #11 and #112)	\$ 9,900,000
Galveston District Section 211 implementation costs (auditing, coordinating, review of E&D, constr. management)	100,000
Total	\$10,000,000

NON-FEDERAL COST & REQUIREMENTS: Brays Bayou has been identified as a demonstration project by Section 211 of the Water Resources Development Act of 1996 (P.L. 104-303). A Project Cooperation Agreement is required between the Corps and the Harris County Flood Control District, the project's sponsor. In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Upstream Element		
Provide lands, easements, rights-of-way, and borrow and excavated or dredged material disposal areas.	58,580,000	
Modify or relocate, utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	1,530,000	
Pay one-half of the separable costs allocated to recreation and bear all cost of operation, maintenance, repair, rehabilitation and replacement of recreation facilities.	2,581,000	300,000
Pay 5 percent of the costs allocated to flood control, and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	10,239,000	247,480

Division: Southwestern

District: Galveston

Project: Brays Bayou, Houston, Texas

2 February 2004

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Requirements of Local Cooperation (continued)	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Downstream Element		
Provide lands, easements, rights-of-way, and borrow and excavated or dredged material disposal areas.	38,700,000	
Modify or relocate, utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	38,430,000	
Pay one-half of the separable costs allocated to recreation and bear all cost of operation, maintenance, repair, rehabilitation and replacement of recreation facilities.	529,000	57,300
Pay 5 percent of the costs allocated to flood control, and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	13,041,000	371,220
Total Non-Federal Costs	163,630,000	976,000
The non-Federal sponsors must also agree to make all required payments concurrently with project construction.		

STATUS OF LOCAL COOPERATION: The sponsor for the flood control project is Harris County, acting through the Harris County Flood Control District. The PCA for the flood control portion of the Detention Element was executed on March 3, 2000. The current non-Federal cost estimate of \$70,399,000 for this portion is an increase of \$219,000 from the non-Federal cost estimate of \$70,180,000 noted in the Project Cooperation Agreement (PCA). In accordance with Section 211 of the Water Resources Development Act of 1996, the sponsor is investigating the Downstream Element in an effort to find an alternative to the authorized project. A project cooperation agreement for this effort will be negotiated. There is currently no sponsor for the recreation features of the project.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$308,130,000 is a decrease of \$4,400,000 from the latest estimate (\$312,530,000) presented to Congress (FY 2004). This change includes the following items.

Item	Amount
Price Escalation on Construction Features	(-) \$4,400,000
Total	(-) \$4,400,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Environmental Impact Statement was filed with the Environmental Protection Agency in September 1988. The Environmental Assessment (EA) for the Detention Element was completed on 3 April 1998 with the signing of the Finding of No Significant Impacts (FONSI).

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in Fiscal Year 1990, and funds to initiate construction were appropriated in Fiscal Year 1998.

The Brays Bayou project is divided into two separable elements, an upstream and a downstream element. The upstream element has undergone design, and construction was initiated in FY 98. The downstream element is not supported by the Sponsor or the homeowners in the area, so an alternative must be identified to provide a level of protection to this portion of the Houston area. The Harris County Flood Control District (HCFCD), the local sponsor, is currently conducting reformulation studies, and has proposed an alternative to the downstream element consisting of 17.5 miles of earthen channel modifications, replacement and/or modification of 30 bridges, and 1,865 acre-feet of stormwater detention on a tributary (Willow Waterhole).

The project was included in the Water Resources Development Act of 1996 (Section 211(f)(6)) as a demonstration project to show advantages and effectiveness of non-Federal interests to undertake planning, design, and construction of Federal Flood Control projects. The HCFCD will receive reimbursement upon completion and approval of discrete segments of the authorized project. Each discrete segment's work will be audited prior to reimbursement. Funds being appropriated will be used to reimburse the sponsor and to pay Corps oversight costs.

Division: Southwestern

District: Galveston

Project: Brays Bayou, Houston, Texas

2 February 2004

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Upstream Separable Element

SUMMARIZED FINANCIAL DATA

Estimated Federal Cost	137,012,000
Estimated Non-Federal Cost	72,930,000
Cash Contributions	12,820,000
Other Costs	60,110,000

REMAINING BENEFIT-REMAINING COST RATIO: 1.8 to 1 at 7 5/8 percent.

TOTAL BENEFIT-COST RATIO: 4.3 to 1 at 7 5/8 percent.

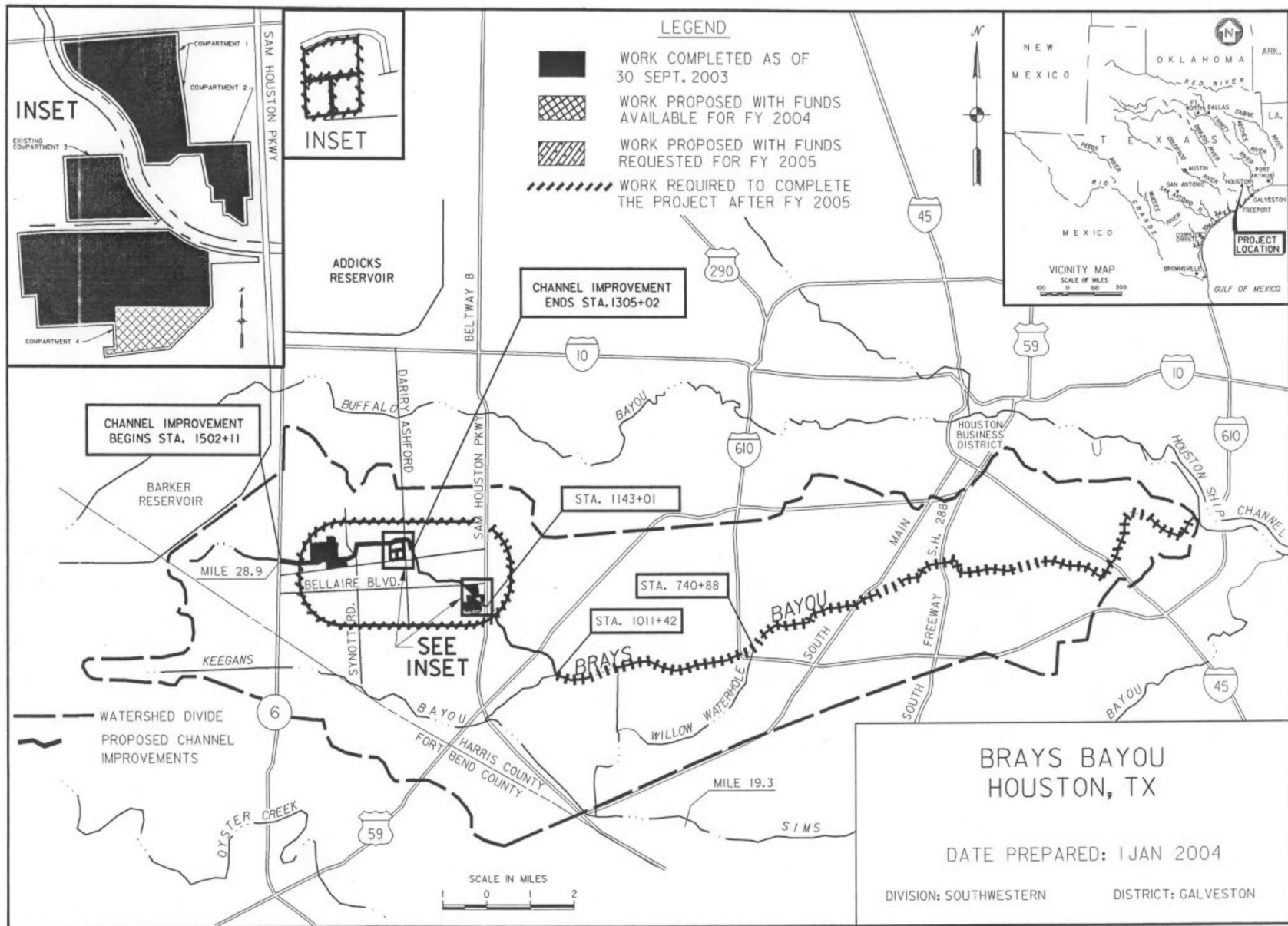
Downstream Separable Element

SUMMARIZED FINANCIAL DATA

Estimated Federal Cost	171,118,000
Estimated Non-Federal Cost	90,700,000
Cash Contributions	13,570,000
Other Costs	77,130,000

REMAINING BENEFIT-REMAINING COST RATIO: 3.6 to 1 at 7 5/8 percent.

TOTAL BENEFIT-COST RATIO: 2.4 to 1 at 7 5/8 percent.



Division: Southwestern

District: Galveston

Project: Brays Bayou, Houston, Texas

2 February 2004

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APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

PROJECT: Johnson Creek, Upper Trinity River Basin, Arlington, TX (Continuing)

LOCATION: Arlington, Texas

DESCRIPTION: The Johnson Creek project includes a buy-out of 140 structures for flood damage reduction, 155 acres of ecosystem restoration, and 2.25 miles of linear recreation features. The buy-out would prevent damages during a 25-year flood event.

AUTHORIZATION: Public Law 106-53, Section 101(b)(14).

REMAINING BENEFIT-REMAINING COST RATIO: 4.1 to 1 at 5-7/8 percent.

TOTAL BENEFIT-COST RATIO: 1.5 to 1 at 7-2/8 percent.

INITIAL BENEFIT-COST RATIO: 1.5 to 1 at 7-1/8 percent.

BASIS OF BENEFIT-COST RATIO: Benefits are from the latest available evaluation approved in the Interim Feasibility Report dated March 1999.

		ACCUM PCT. OF EST. FED. COST	STATUS (1 JAN 2004)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
SUMMARIZED FINANCIAL DATA					
Estimated Federal Cost	\$19,670,000	0	Entire Project	85	To be determined
Estimated Non-Federal Cost	8,146,000				PHYSICAL DATA
Cash Contributions	1,313,000				Buy-out of 140 structures for flood
LERRDs	23,000,000				damage reduction
Reimbursable	(16,167,000)				Ecosystem restoration of 155 acres
					2.25 miles of linear recreation
Total Estimated Project Cost	\$27,816,000				

Division: Southwestern

District: Fort Worth

Project: Johnson Creek, Arlington, Texas
Upper Trinity River Basin

2 February 2004

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SUMMARIZED FINANCIAL DATA (Continued)

**ACCUM
PCT. OF EST.
FED COST**

Allocations to 30 September 2003	\$ 15,321,000		
Conference Allowance for FY 2004	2,200,000		
Allocation for FY 2004	\$ 1,700,000	<u>1/</u>	<u>1/</u> Reflects \$487,000 reduction
Allocations through FY 2004	17,021,000	87	assigned as savings and
Allocation Requested for FY 2005	\$ 2,200,000	98	slippage, and \$13,000 rescinded
Programmed Balance to Complete after FY 2005	449,000		in accordance with the Consolidated
Unprogrammed Balance to Complete after FY 2005	0		Appropriations Bill, 2004.

JUSTIFICATION: The Johnson Creek watershed, which has a drainage area of 21 square miles, lies principally in Tarrant County with a small portion lying in Dallas County. Much of the watershed, which is extensively developed, is being used for industrial, residential, commercial, and recreational activities. The Six Flags Over Texas Amusement Park, the Ballpark at Arlington, and the Arlington Convention Center are all located along the banks of Johnson Creek. A total of 556 structures, with an estimated total value of \$66.6 million, were identified within the Standard Project Flood limits of Johnson Creek. Historically, numerous flood events have occurred along Johnson Creek. The flood of record occurred on 16-17 May 1989, which damaged 175 structures and overtopped the eight major bridges by as much as five feet. The flood of 26-27 March 1977 inundated about 70 homes, and one person drowned. The average annual benefits are \$1,910,000 based on October 1998 price levels.

Annual Benefits	Amount
Flood Damage Reduction	\$ 791,000
Recreation	1,119,000
Total	\$1,910,000

Ecosystem Restoration - net increase of 117 Average Annual Habitat Units

Division: Southwestern

District: Fort Worth

**Project: Johnson Creek, Arlington, Texas
Upper Trinity River Basin**

2 February 2004

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FISCAL YEAR 2005: The requested amount will be applied as follows:

Construction Management	175,000
Ecosystem Restoration	400,000
Recreation Facilities	1,575,000
Planning, Engineering & Design	50,000
Total	\$ 2,200,000

NON-FEDERAL COST: In accordance with the Water Resources Development Act of 1996, the non-Federal sponsor must comply with the requirements listed below.

	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair Rehabilitation and Replacement Costs
Requirements of Local Cooperation		
Provide lands; easements; rights-of-way; relocation payments and assistance to displaced persons; disposal areas for borrow and excavated or dredged material; and modify or relocate utilities roads, bridges and other facilities, where necessary, for the construction of the project.	\$7,521,000	0
Pay 35 percent of Flood Damage Reduction	0	\$ 32,700
Pay 35 percent of Ecosystem Restoration	0	17,600
Pay one-half of the separable costs allocated to recreation plus 100 percent of recreation costs above Federal limit.	625,000	55,000
Total non-Federal Costs	\$ 8,146,000	\$ 105,300

The non-Federal sponsor will make all required payments concurrently with project construction. The non-Federal sponsor will also bear all costs of operation, maintenance, repair, rehabilitation and replacement of project features.

Division: Southwestern

District: Fort Worth

Project: Johnson Creek, Arlington, Texas
Upper Trinity River Basin

STATUS OF LOCAL COOPERATION: The city of Arlington, Texas, signed the Project Cooperation Agreement on 1 December 2000. The city of Arlington will fund the non-Federal portion of this project with the sale of bonds and certificates of obligation by the city of Arlington. The city, through approval of a Section 104 agreement, has already expended \$7,528,000 on the project.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$19,670,000 is a decrease of \$230,000 over the latest estimate of \$19,900,000 submitted to Congress in Fiscal Year 2004.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: A Finding of No Significant Impact was prepared as part of the Environmental Assessment and was executed on 4 September 1998. Fish and wildlife mitigation is not required for this non-structural project.

OTHER INFORMATION: The Assistant Secretary of the Army, Civil Works, approved a Section 104, Public Law 99-662, General Credit for Flood Control, on 5 February 1997. Funds to initiate construction were appropriated in Fiscal Year 2000.

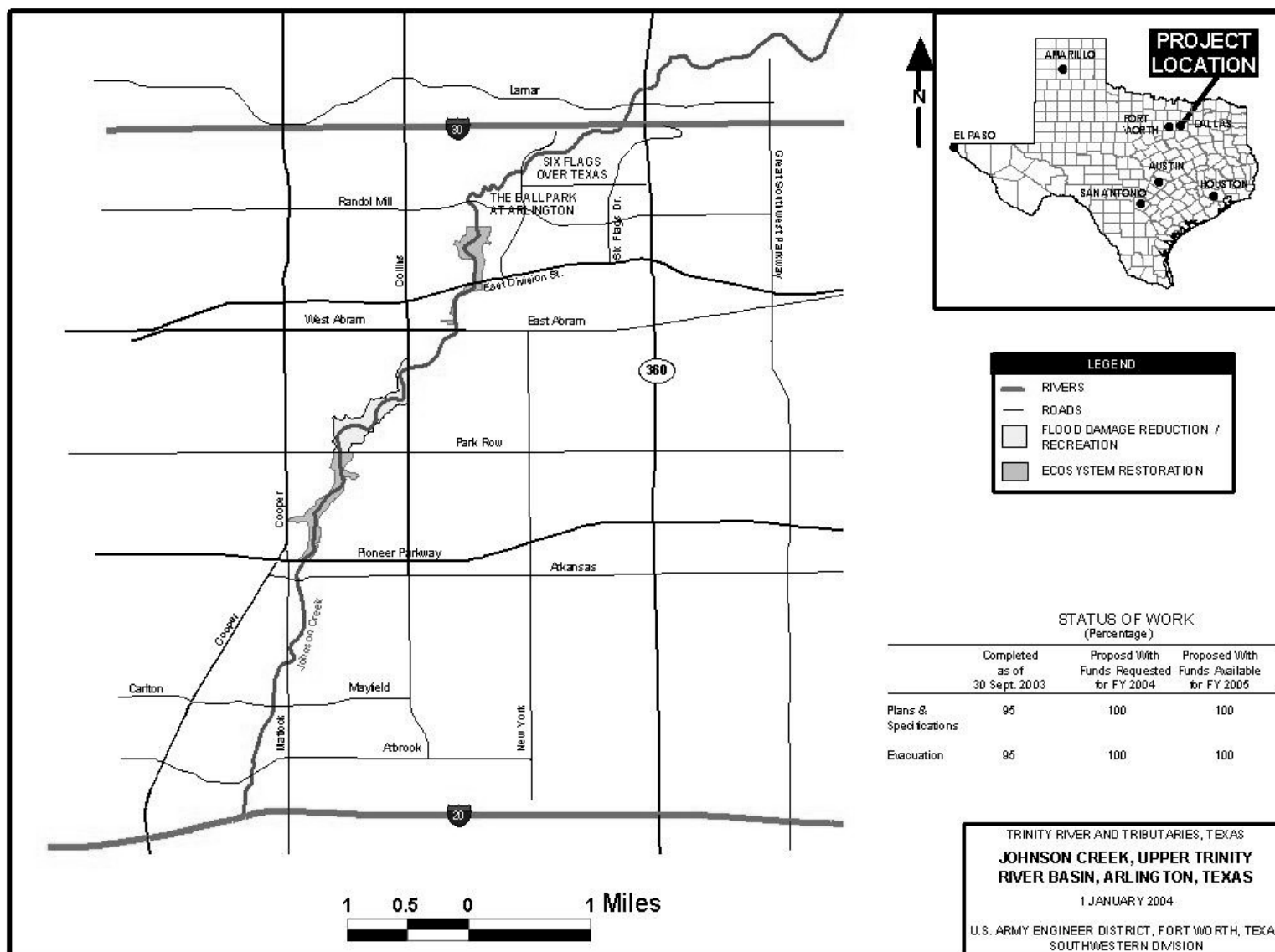
Division: Southwestern

District: Fort Worth

Project: Johnson Creek, Arlington, Texas
Upper Trinity River Basin

2 February 2004

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Division: Southwestern

District: Fort Worth

Project: Johnson Creek, Arlington, Texas
 Upper Trinity River Basin

2 February 2004

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APPROPRIATION TITLE: Construction General - Local Protection (Flood Control)

PROJECT: Sims Bayou, Houston, TX (Continuing)

LOCATION: The project is located in Harris County, in the southern portion of Houston, Texas.

DESCRIPTION: The project provides flood damage reduction and consists of 19.3 miles of channel enlargement, rectification, and erosion control measures. Environmental quality measures, riparian habitat improvements, and recreational features are also included in the project.

AUTHORIZATION: Water Resources Development Act (WRDA) of 1986, Energy and Water Development Appropriations Act of 1990, and WRDA of 1992.

REMAINING BENEFIT-REMAINING COST RATIO: 9.0 to 1 at 8 5/8 percent.

TOTAL BENEFIT-COST RATIO: 6.8 to 1 at 8 5/8 percent.

INITIAL BENEFIT-COST RATIO: 9.3 to 1 at 8 5/8 percent (FY 1990).

BASIS OF BENEFIT-COST RATIO: Benefits are from Supplement 1 to the General Design Memorandum dated May 1993 at October 1992 price levels. Costs are based on the GDM Supplement 1 at October 1992 price levels.

SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST	STATUS (1 Jan 2004)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	233,915,000		Entire Project	70	To Be Determined
Estimated Non-Federal Cost	113,295,000				
Cash Contribution	20,565,000				
Other Costs	92,730,000				
PHYSICAL DATA					
Total Estimated Project Cost	347,210,000		Channels:		
			Sims Bayou - 19.3 miles		
			Relocations:		
			Railroad bridges		
			Utilities		
			Roads		
			Recreation facilities:		
			Hike-and-bike trails with picnic and		
			other day-use facilities		
Allocations to 30 September 2003	132,203,000				
Conference Allowance for FY 2004	12,000,000				
Allocation for FY 2004	9,273,000 <u>1/</u>				
Allocations through FY 2004	141,476,000 60%				
Allocation Requested for FY 2005	16,000,000 67%				
Programmed Balance to Complete after FY 2005	76,439,000				
Unprogrammed Balance to Complete after FY 2005	0				

1/ Reflects \$2,656,000 reduction assigned to savings and slippage and \$71,000 rescinded in accordance with the Consolidated Appropriations Bill, 2004.

JUSTIFICATION: The project will reduce stream flooding from 14,800 acres of urban lands and beneficially affect nearly 78,000 persons living in 29,000 homes. The 100-year flood plain would be reduced to 2,300 acres outside the required rights-of-way. The recreational development will partially satisfy existing demand in the area. Average annual benefits, annualized at an 8-5/8% interest rate and based on October 1992 prices are as follows:

Annual Benefits	Amount
Flood Damage Prevention	219,344,700
Recreation	945,300
 Total	 220,290,000

Division: Southwestern

District: Galveston

Project: Sims Bayou, Houston, Texas

2 February 2004

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FISCAL YEAR 2005: The requested amount of \$16,000,000 will be applied as follows:

Continue construction	\$14,200,000
Financing of Local Sponsor LERRDs	300,000
Planning, Engineering, and Design	500,000
Construction Management	1,000,000
 Total	 \$16,000,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, rights-of-way, and borrow and excavated or dredged material disposal areas.	40,010,000	
Modify or relocate, utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	52,400,000	
Pay one-half of the separable costs allocated to recreation and bear all cost of operation, maintenance, repair, rehabilitation and replacement of recreation facilities.	3,565,000	139,000
Pay 5 percent of the costs allocated to flood control, and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	17,000,000	331,000
Credit for preparation of the dredged material disposal area for the Mouth to PTRR reach and completed miscellaneous engineering and design activities.	320,000	
 Total Non-Federal Costs	 113,295,000	 470,000

The non-Federal sponsors must also agree to make all required payments concurrently with project construction.

Division: Southwestern

District: Galveston

Project: Sims Bayou, Houston, Texas

STATUS OF LOCAL COOPERATION: The sponsor for the flood control project is Harris County. The current non-Federal cost estimate of \$113,295,000 for flood control, which includes a cash contribution of \$20,565,000, is an increase of \$26,695,000 from the non-Federal cost estimate of \$86,600,000 noted in the Local Cooperation Agreement (LCA), which reflected a cash contribution of \$13,800,000. In a letter dated 19 September 1991, the non-Federal sponsor indicated that it is financially capable and willing to contribute the increased non-Federal share. Analysis (dated 31 October 1991) of the non-Federal sponsor's financial capability to participate in the project reaffirms that the sponsor has a reasonable and implementable plan for meeting their financial commitment as expressed in the LCA. In 1993, the City of Houston indicated its desire to sponsor the recreation features for the project. In April 1999 the City provided a letter indicating its renewed interest in sponsorship. The recreational features and LRR have been put on hold pending development of a financial plan by the sponsor.

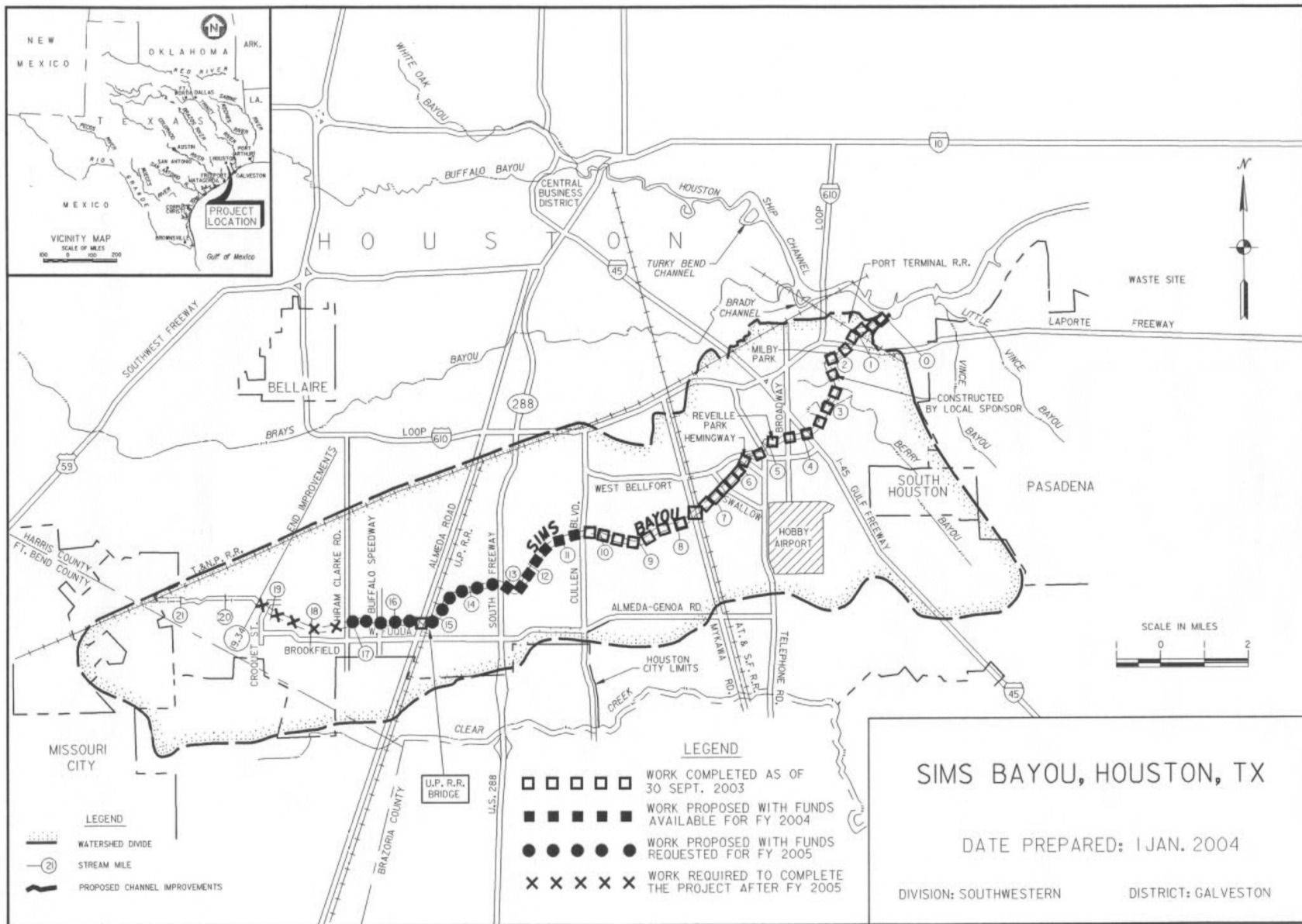
COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$233,915,000 is an increase of \$2,135,000 from the latest estimate (\$231,780,000) presented to Congress (FY 2004). This change includes the following items.

Item	Amount
Price Escalation on Construction Features	(+) 2,135,000
Total	(+) \$2,135,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement was filed with the Environmental Protection Agency in September 1983.

OTHER INFORMATION: Funds to initiate preconstruction planning were appropriated in Fiscal Year 1986 and funds to initiate construction were appropriated in Fiscal Year 1990.

The Assistant Secretary of the Army for Civil Works has approved the sponsor's request for credit for work performed by the local sponsor. This credit is currently estimated at \$20,070,000, exclusive of lands and is being reimbursed during the period of construction. The project authorization was amended by the Energy and Water Development Appropriations Act of 1990 as the project cost estimate exceeded the maximum cost growth as described in Section 902 of the Water Resources Development Act of 1986. The authorization has been further modified by WRDA '92, Section 102 (66), to include, to the extent practicable, measures to improve environmental quality and riparian habitat.



Division: Southwestern

District: Galveston

Project: Sims Bayou, Houston, Texas

2 February 2004

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APPROPRIATION TITLE: Construction, General - Dam Safety Assurance

PROJECT: Table Rock Lake, Missouri and Arkansas, (Continuing)

LOCATION: Table Rock Dam is located on the White River 528.8 miles above its mouth, in Stone and Taney Counties in southwest Missouri near the city of Branson.

DESCRIPTION: Table Rock Dam has been shown to be hydrologically deficient, with storage available to contain 65 percent of the Probable Maximum Flood (PMF). Studies indicate that this flood would overtop the dam more than five feet and would breach the earthen embankment portion of the dam, causing catastrophic flood conditions for downstream areas including Branson. The project consists of the design and construction of an auxiliary gated spillway located just downstream of the existing left embankment, which will serve as a cofferdam during construction. The project includes the construction of a bridge to cross the spillway and a slight realignment of State Highway 165/265 on top of the existing dam.

AUTHORIZATION: Flood Control Acts of 1938, 1941 and 1944.

REMAINING BENEFITS-REMAINING COST RATIO: Not applicable.

TOTAL BENEFIT-COST RATIO: Not Applicable.

INITIAL BENEFIT-COST RATIO: Not applicable.

BASIS OF BENEFIT-COST RATIO: Not applicable.

SUMMARIZED FINANCIAL DATA

Actual Federal Cost	\$16,233,000
Actual Non-Federal Cost	49,867,000
Cash Contributions	0
Hydropower Reimbursement	49,867,000
Total Original Project Cost	66,100,000

STATUS (1 Jan 2004)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Entire Project	90	September 2005

Division: Southwestern

District: Little Rock

Project: Table Rock Lake
Missouri & Arkansas (Dam Safety)

2 February 2004

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SUMMARIZED FINANCIAL DATA (CONTINUED)

Remedial Work or Project Modification

ACCUM
PCT OF EST
FED COST

Estimated Total Appropriation Requirement	\$73,433,000		
Future Non-Federal Reimbursement	7,593,000		
Estimated Federal Cost (Ultimate)	65,840,000		
Estimated Non-Federal Cost	7,593,000		
Reimbursement	7,593,000		
Hydropower	7,593,000		
Total Estimated Project Cost	73,433,000		
Allocations to 30 September 2003	65,674,000	89	
Conference Allowance for FY 2004	5,000,000		
Allocation for FY 2004	3,863,000 <u>1/</u>		
Allocations through FY 2004	69,537,000	95	
Allocation Requested for FY 2005	3,896,000		
Programmed Balance to Complete	0		
Unprogrammed Balance to Complete After FY 2005	0		

1/ Reflects \$1,107,000 reduction assigned as savings & slippage, and \$30,000 rescinded in accordance with the Consolidated Appropriations Bill, 2004.

PHYSICAL DATA: The dam, which was started in October 1952 and completed in November 1958, consists of a 1,602 foot concrete gravity section and two earth fill embankment structures with a length of 4,821 feet. Total length of the dam is 6,423 feet rising to a maximum height of 252 feet above the streambed. The structure has four 4 foot by 9 foot sluices. The gated spillway consists of ten bays, each 45 feet wide, controlled by 37-foot high tainter gates. The dam contains four 50,000-kw power units, each supplied by an 18-foot diameter penstock. Storage is provided in the reservoir for water supply, flood control, and generation of hydroelectric power. The original plan of improvement was to raise the top of the existing dam by ten feet. The current plan under construction will provide an auxiliary gated spillway in place of part of the existing earthen embankment on the left side, looking downstream. This gated emergency spillway consists of eight bays, each 48 feet wide, controlled by 43-foot high tainter gates.

Division: Southwestern

District: Little Rock

Project: Table Rock Lake
Missouri & Arkansas (Dam Safety)

2 February 2004

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JUSTIFICATION: The Program Evaluation Report of December 1994 found that the existing spillway would not safely pass the probable maximum flood without overtopping the dam; therefore, structural modifications to increase the reservoir capacity are recommended. It has been determined that this flood would overtop the dam by more than five feet and that failure of the earthen portion of the dam would occur.

A Table Rock Dam failure would cause about \$363 million of downstream damages. Damages would consist of \$171 million to commercial and residential structures, \$44.4 million to recreation facilities, \$46 million to roads and bridges, \$95 million to hydropower facilities at Table Rock and Bull Shoals projects and \$6.3 million to the Shepherd of the Hills Fish Hatchery. In addition, Table Rock Lake Project is estimated to generate \$106 million annually from project purposes of flood control, recreation, and hydropower. These benefits would be lost if the dam were to fail. A failure of the dam could put 12,400 people at risk to injury and death with major damages to the city of Branson, Missouri.

FISCAL YEAR 2005: The requested amount will be applied as follows:

Complete Construction on Auxiliary Gates Spillway	\$ 3,651,000
Planning, Engineering and Design	86,000
Construction Management	159,000
 Total	 \$ 3,896,000

NON-FEDERAL COST: The non-Federal sponsor must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Pay all costs allocated to hydropower and bear all costs of operation, maintenance, repair, rehabilitation, and replacement of hydropower facilities.	\$7,593,000	\$0
 Total Non-Federal Costs	 \$7,593,000	 \$0

STATUS OF LOCAL COOPERATION: The Southwestern Power Administration has been contacted and understands the requirement for reimbursement of costs allocated to power.

Division: Southwestern

District: Little Rock

Project: Table Rock Lake
Missouri & Arkansas (Dam Safety)

2 February 2004

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COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$73,433,000 is an increase of \$533,000 from the latest estimate (72,900,000) submitted to Congress (FY 2004). The change in total estimate includes the following items.

Item	Amount
Preliminary estimate of work required for Homeland Security	\$468,000 <u>1/</u>
Price level increases	65,000
Total	\$533,000

1/ Homeland security cost includes requirements for fencing, lighting, and other activities related only to the dam safety project.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: A Finding of No Significant Impact was signed in October 1997.

OTHER INFORMATION: The initial Planning and Engineering was accomplished using Operation and Maintenance, General funds.

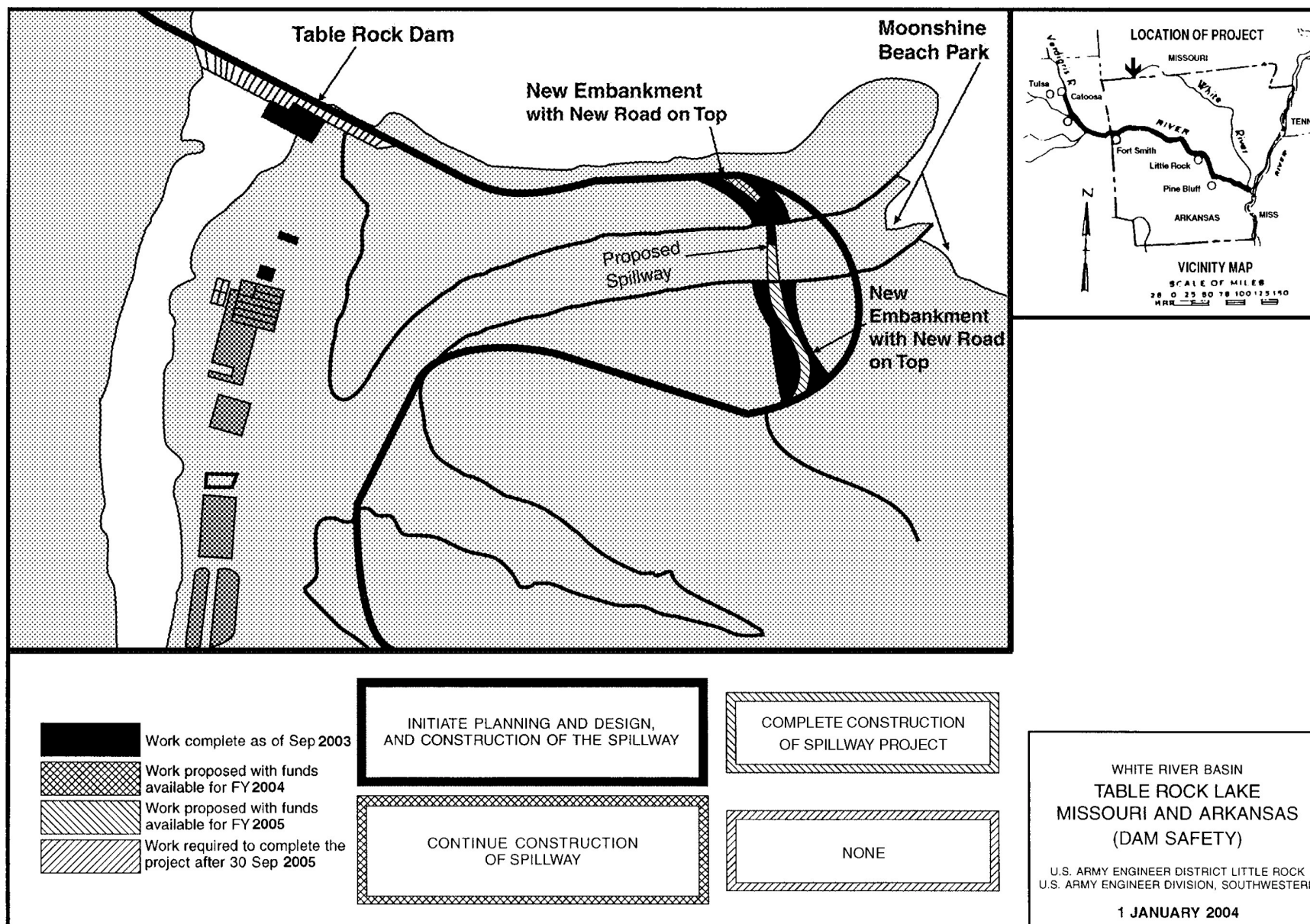
Division: Southwestern

District: Little Rock

Project: Table Rock Lake
Missouri & Arkansas (Dam Safety)

2 February 2004

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Division: Southwestern

District: Little Rock

Project: Table Rock Lake
Missouri & Arkansas (Dam Safety)

2 February 2004

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APPROPRIATION TITLE: Construction, General - Dam Safety Assurance

PROJECT: Tenkiller Ferry Lake, Oklahoma (Continuing)

LOCATION: The project is located on the Illinois River about 7 miles northeast of Gore and about 22 miles southeast of Muskogee, Oklahoma.

DESCRIPTION: The study area consists of the reservoir area above Tenkiller Ferry Dam up to the maximum pool caused by PMF inflow, the Illinois River floodplain from Tenkiller Ferry Dam to the Arkansas River, and the Arkansas River flood plain from Webbers Falls Lock and Dam to a point just below Fort Smith and Van Buren, Arkansas, including R. S. Kerr and W. D. Mayo reservoirs and navigation structures.

AUTHORIZATION: Flood Control Act of 1938.

BENEFIT-COST RATIO: Not applicable.

TOTAL BENEFIT-COST RATIO: Not applicable.

INITIAL BENEFIT-COST RATIO: Not applicable.

BASIS OF BENEFIT-COST RATIO: Not applicable.

SUMMARIZED FINANCIAL DATA		ACCUM. PCT. OF EST. FED. COST	STATUS (1 Jan 2004)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Original Project			Entire Project	60	To Be Determined
Actual Federal Cost		\$ 24,057,718			
Actual Non-Federal Cost		0			
Cash Contributions	\$	0			
Other Costs		0			
Total Original Project Cost		\$ 24,057,718			

Division: Southwestern

District: Tulsa

Project: Tenkiller Ferry Lake
Oklahoma (Dam Safety)

2 February 2004

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**ACCUM
PCT. OF EST.
FED. COST**

SUMMARIZED FINANCIAL DATA (Continued):

Project Modification	
Estimated Federal Cost	\$ 37,600,000
Estimated Non-Federal Cost	0
Cash Contribution	\$ 0
Other Costs	0
Total Estimated Modification Cost	\$ 37,600,000
 Total Estimated Project Cost	 \$ 61,657,718
 Allocations to 30 September 2003	 28,187,000
Conference Allowance for FY 2004	4,400,000
Allocation for FY 2004	3,400,000 <u>1/</u>
Allocations through FY 2004	31,587,000
Allocation Requested for FY 2005	4,400,000
Programmed Balance to Complete	1,613,000
Unprogrammed Balance to Complete after FY 2005	0

1/ Reflects \$974,000 reduction assigned as savings and slippage and \$26,000 rescinded in accordance with the Consolidated Appropriations Bill, 2004.

PHYSICAL DATA: Construction began in June 1947. Embankment closure was completed in May 1952. The dam consists of an earthfill embankment approximately 3,000 feet in length, an earthfill dike about 1,350 feet in length and with a gated concrete gravity spillway located on the right abutment. Ten tainter gates 50 feet wide by 24 feet high regulate lake releases through the spillway. The low flow control outlet is a 19-foot diameter conduit with two service gates. The top of dam is at elevation 677.2.

An auxiliary spillway with five 50 feet wide by 35 feet high tainter gates would be constructed near the right abutment of the embankment. This spillway structure has been designed similar to the existing spillway.

Division: Southwestern

District: Tulsa

Project: Tenkiller Ferry Lake
Oklahoma (Dam Safety)

2 February 2004

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JUSTIFICATION: The spillway is inadequate to pass the probable maximum flood, and if it occurred, the embankment would be overtopped for a duration of 30 hours at a peak elevation of approximately 683.5 feet. The existing spillway would pass about 85 percent of the probable maximum flood with no freeboard. If the probable maximum flood occurred and overtopping caused dam failure, severe economic damage would be incurred downstream. According to the approved Dam Safety Assurance Program Recon Report, the downstream effect of a PMF event with accompanying dam failure, would include approximately \$298,000,000 of economic loss and an adverse effect on approximately 9,000 residents.

FISCAL YEAR 2005: The requested amount will be applied as follows:

Continue Construction	\$ 3,504,000
Planning, Engineering & Design	394,000
Construction Management	502,000
Total	\$ 4,400,000

NON-FEDERAL COST: Not applicable.

STATUS OF LOCAL COOPERATION: Not applicable.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$37,600,000 is a decrease of \$2,000,000 from the latest estimate (\$39,600,000) presented to Congress (FY 2004). The change includes the following items:

Item	Amount
Post Contract Award and Other Estimating Adjustments	(+) \$1,800,000
Price Escalation on Construction Features	(+) 200,000
Total	(+) \$2,000,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: Not required.

The provisions of Section 404 of the Clean Water Act do not apply because the project improvements do not involve the placement of fill material or the discharge of dredge material in the waters of the United States.

OTHER INFORMATION: A feature design memorandum was completed in September 1995. Plans and specifications for Phase I were completed in December 1998. The Phase 1 contract was awarded in May 1999.

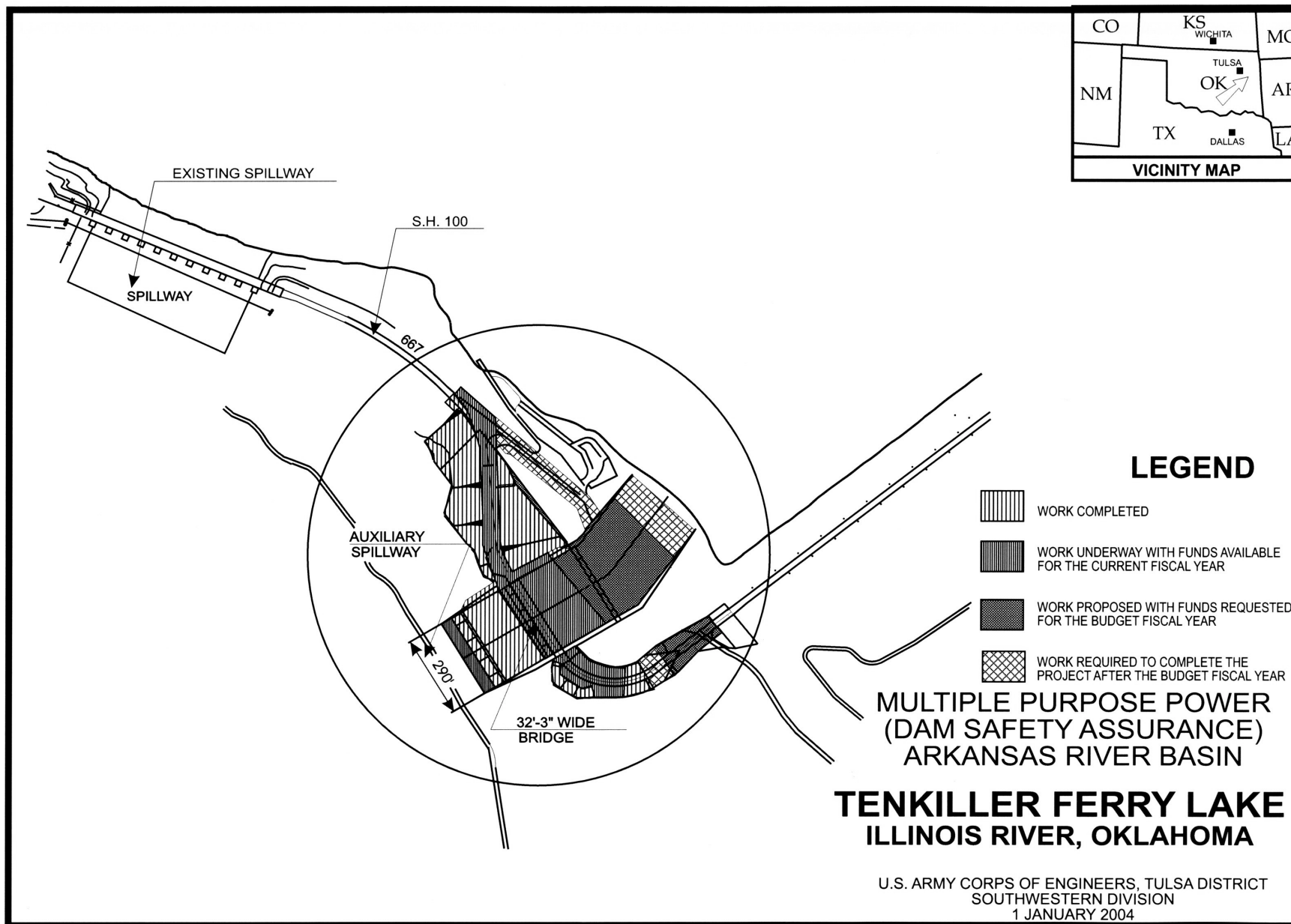
Division: Southwestern

District: Tulsa

Project: Tenkiller Ferry Lake
Oklahoma (Dam Safety)

2 February 2004

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Division: Southwestern

District: Tulsa

Project: Tenkiller Ferry Lake
Oklahoma (Dam Safety)

2 February 2004

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APPROPRIATION TITLE: Construction, General - Major Rehabilitation, Multiple Purpose (Including Power)

PROJECT: Ozark (Powerhouse), Arkansas, (Major Rehabilitation) (Continuing)

LOCATION: Ozark Powerhouse is located at Ozark Jeta-Taylor Lock & Dam on the Arkansas River in Franklin County, Arkansas.

DESCRIPTION: Replace the five turbines at the Ozark Powerhouse. The project is part of the McClellan-Kerr Arkansas River Navigation System.

AUTHORIZATION: River and Harbor Act of 1946.

REMAINING BENEFITS-REMAINING COST RATIO: 1.44 to 1 at 6 1/8 percent.

TOTAL BENEFIT-COST RATIO: 1.44 to 1 at 6 1/8 percent.

BASIS OF BENEFIT-COST RATIO: Benefits are from the Major Rehabilitation Evaluation Report, dated March 1999 at 2001 price levels.

SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST	STATUS (1 Jan 2004)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Total Appropriation Requirement	\$58,900,000		Entire Project	1	To Be Determined
Future Non-Federal Reimbursement	58,900,000				
Estimated Federal Cost (Ultimate)	0				
Estimated Non-Federal Cost	58,900,000				
Cash Contributions	0				
Other Costs	0				
Reimbursements	\$58,900,000				
Hydropower	\$58,900,000				
Total Estimated Project Cost	\$58,900,000				

PHYSICAL DATA

Replace existing five turbines with new turbines.

Division: Southwestern

District: Little Rock

Project: Ozark (Powerhouse), Arkansas
(Major Rehabilitation)

SUMMARIZED FINANCIAL DATA (CONTINUED)

**ACCUM
PCT OF EST
FED COST**

Allocations to 30 September 2003	\$ 208,000	1	
Conference Allowance for 2004	2,000,000		
Allocation for FY 2004	1,545,000 <u>1/</u>		<u>1/</u> Reflects \$443,000 reduction
Allocation through FY 2004	1,753,000	3	assigned as savings and slippage,
Allocation Requested for FY 2005	5,000,000	18	and \$12,000 rescinded in accordance
			with the Consolidated
Programmed Balance to Complete	52,147,000		Appropriations Bill, 2004.
Unprogrammed Balance to Complete after FY 2005	0		

JUSTIFICATION: Ozark Powerhouse units are rapidly approaching failure and have exhibited reliability problems. Extensive repairs and/or replacement are required to maintain hydropower production. Replacement of the turbines with improved design turbines will allow for more efficient generation of power, restore power benefits, and extend the useful life of this feature. This project will remove the existing five turbines and replace them with "state of the art" turbines. Average annual benefits are \$5,407,000, all hydropower, based on 2001 price levels.

FISCAL YEAR 2005: The requested amount will be applied as follows:

Continue Construction of Turbines	\$3,800,000
Planning, Engineering, and Design	450,000
Construction Management	750,000
 Total	 \$5,000,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Flood Control Act of 1944, the non-Federal sponsor must comply with the requirements listed below:

Division: Southwestern

District: Little Rock

Project: Ozark (Powerhouse), Arkansas
(Major Rehabilitation)

2 February 2004

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Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Pay all costs allocated to hydropower and bear all costs of operation, maintenance, repair, rehabilitation, and replacement of hydropower facilities.	\$58,900,000	0
Cash Contribution	(0)	
Reimbursement	(58,900,000)	
Total Non-Federal Costs	\$58,900,000	0

The non-Federal sponsor will reimburse its share of construction costs over a period not to exceed 50 years following completion of construction.

STATUS OF LOCAL COOPERATION: This project is to be 100 percent Federally funded with payback from the Southwestern Power Administration's sale of power. Reimbursement payments will be initiated at the completion of construction.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$58,900,000 is the initial submittal to Congress.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: An environmental assessment of the project was completed in January 1999. A Finding of No Significant Impact was signed 13 January 1999.

OTHER INFORMATION: The Major Rehabilitation Report was approved in July 1999. Downstream tailrace crane contract awarded in October 2003. Contract award for construction of turbines to be awarded in August 2004.

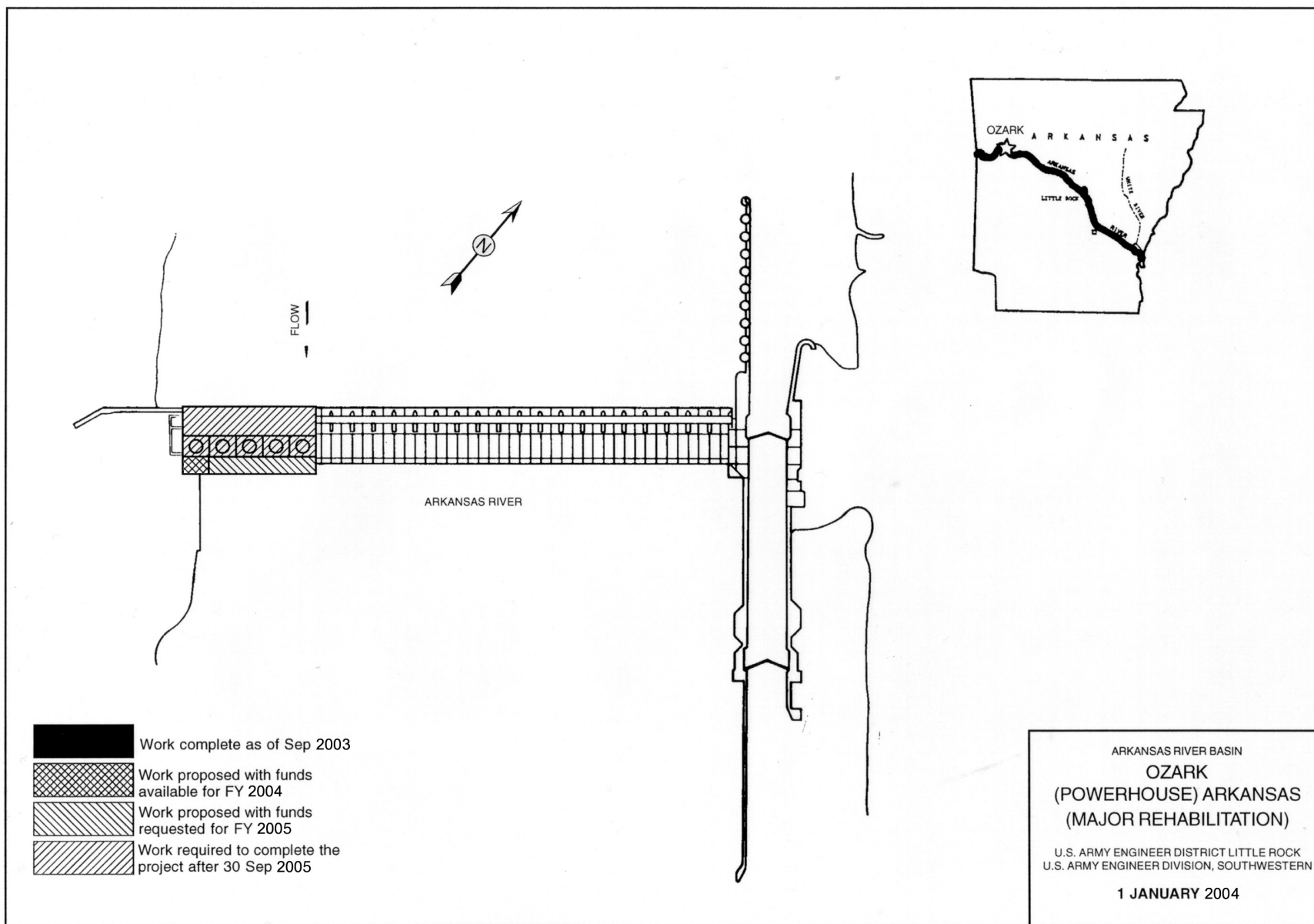
Division: Southwestern

District: Little Rock

Project: Ozark (Powerhouse), Arkansas
(Major Rehabilitation)

2 February 2004

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Division: Southwestern

District: Little Rock

Project: Ozark (Powerhouse), Arkansas
(Major Rehabilitation)

2 February 2004

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APPROPRIATION TITLE: Construction, General - Major Rehabilitation, Multiple Purpose (including Power)

PROJECT: Whitney Lake (Powerhouse), Texas (Major Rehabilitation), (Continuing)

LOCATION: Whitney Lake is on the Brazos River, located about 75 miles Southwest of Dallas, Texas. The lake serves Hill, Bosque, Johnson and Somervell Counties. The Whitney powerhouse is located at the dam approximately 5.5 miles southwest of Whitney, Texas on State Highway No. 22.

DESCRIPTION: Replace the two turbines, rewind and uprate the two generators, and replace necessary peripheral items and equipment within the powerhouse. The total increase in power output of the plant will be from 30 megawatts to 42 megawatts. The power produced by the project is marketed by the Southwestern Power Administration to Brazos Electric Power Cooperative.

AUTHORIZATION: Flood Control Act of 1941 (Public Law 228, 77th Congress, 1st Session), River and Harbor Act of 1937, the Flood Control Act of 1937, and Section 216 of the Flood Control Act of 1970.

REMAINING BENEFIT-REMAINING COST RATIO: 1.8 to 1 at 5-7/8 percent.

TOTAL BENEFIT-COST RATIO: 1.8 to 1 at 5-7/8 percent.

BASIS OF BENEFIT-COST RATIO: Benefits are from the Whitney Major Rehabilitation Report, dated March 2001 at October 2000 price levels.

SUMMARIZED FINANCIAL DATA		ACCUM PCT. OF EST. FED. COST	STATUS (1 JAN 2004)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Total Appropriation Requirement	\$ 16,000,000		Entire Project	6	To be determined
Future Non-Federal Reimbursement	16,000,000				
Estimated Federal Cost (Ultimate)	0				PHYSICAL DATA
Estimated Non-Federal Cost	16,000,000				Replace existing two turbines with new turbines. Rewind and uprate two generators. This will result in a 12 megawatt increase in rated total capacity from 30 megawatts to 42 megawatts. Replace necessary peripheral items and equipment in the powerhouse.
Reimbursements	\$ 16,000,000				
Hydropower	\$ 16,000,000				
Total Estimated Project Cost	\$ 16,000,000				

Division: Southwestern

District: Fort Worth

Project: Whitney Lake (Powerhouse), Texas
(Major Rehabilitation)

2 February 2004

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SUMMARIZED FINANCIAL DATA (continued)

**ACCUM.
PCT. OF EST.
FED. COST**

Allocations to 30 September 2003	\$ 618,000		
Conference Allowance for FY 2004	500,000		
Allocation for FY 2004	386,000	<u>1/</u>	<u>1/</u> Reflects \$111,000 reduction assigned as
Allocations through FY 2004	1,004,000	6	savings and slippage and \$3,000
Allocation Requested for FY 2005	1,750,000	11	rescinded in accordance with the.
			Consolidated Appropriations Bill, 2004.
Programmed Balance to Complete after FY 2005	13,246,000		
Unprogrammed Balance to Complete after FY 2005	0		

JUSTIFICATION: The Whitney powerhouse has been operating as a peaking plant for nearly 50 years. The peaking operation results in an average of 200 start-stops per unit per year. A base loaded plant would average five to ten start-stops per unit per year. On both units, the cumulative effects of age and start-stops are showing up as a pattern of generator failures, thus indicating a declining reliability. Both of the generators at Whitney have been de-rated from a design overload capability of 17.2 megawatts down to a maximum of 15 megawatts. The windings of both units at Whitney are in extremely poor condition. There have been several failures of the stator windings since they were put into service in 1953. Slot wedges and filler strips have also been damaged and repaired. The stator cores on both units have required extensive repairs. The turbine runner surfaces are very rough due to the corrosive nature of the river water at Whitney. Every runner blade has suffered cavitation damage. In at least two cases, corrosion has penetrated completely through the buckets of the turbine runner. The holes were repaired by placement of reinforced epoxy. The cavitation damages were originally repaired with stainless steel. The damage from corrosion, cavitation and alteration of the original bucket contour from repetitive repairs has resulted in a substantial efficiency loss. This project will remove the two existing turbines and replace them with "state of the art" turbines and rewind the generators. The annual increase in energy produced can provide enough electricity to power 1500 average homes for one year.

Annual Benefits	Amount
Hydropower Benefits	901,000
Total	\$ 901,000

Division: Southwestern

District: Fort Worth

**Project: Whitney Lake (Powerhouse), Texas
(Major Rehabilitation)**

2 February 2004

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FISCAL YEAR 2005: The requested amount will be applied as follows:

Continue Construction	1,600,000
Construction Management	150,000
Total	\$ 1,750,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Flood Control Act of 1941, the non-Federal sponsor must comply with the requirements listed below:

	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair Rehabilitation and Replacement Costs
Requirements of Local Cooperation		
Pay all costs allocated to hydropower and bear all costs of operation, maintenance, repair, rehabilitation, and replacement of hydropower facilities.	\$ 16,000,000	\$ 250,000
Total Non-Federal Costs	\$ 16,000,000	\$ 250,000

The non-Federal sponsor will reimburse all costs of this project over a period not to exceed 35 years following completion of construction.

STATUS OF LOCAL COOPERATION: The project is to be 100 percent Federally funded with payback from the Southwestern Power Administration's sale of power. Reimbursement payments will be initiated at the completion of construction.

COMPARISON OF FEDERAL COST ESTIMATES: The Federal cost estimate (Corps of Engineers) of \$ 16,000,000 is the initial submittal to Congress.

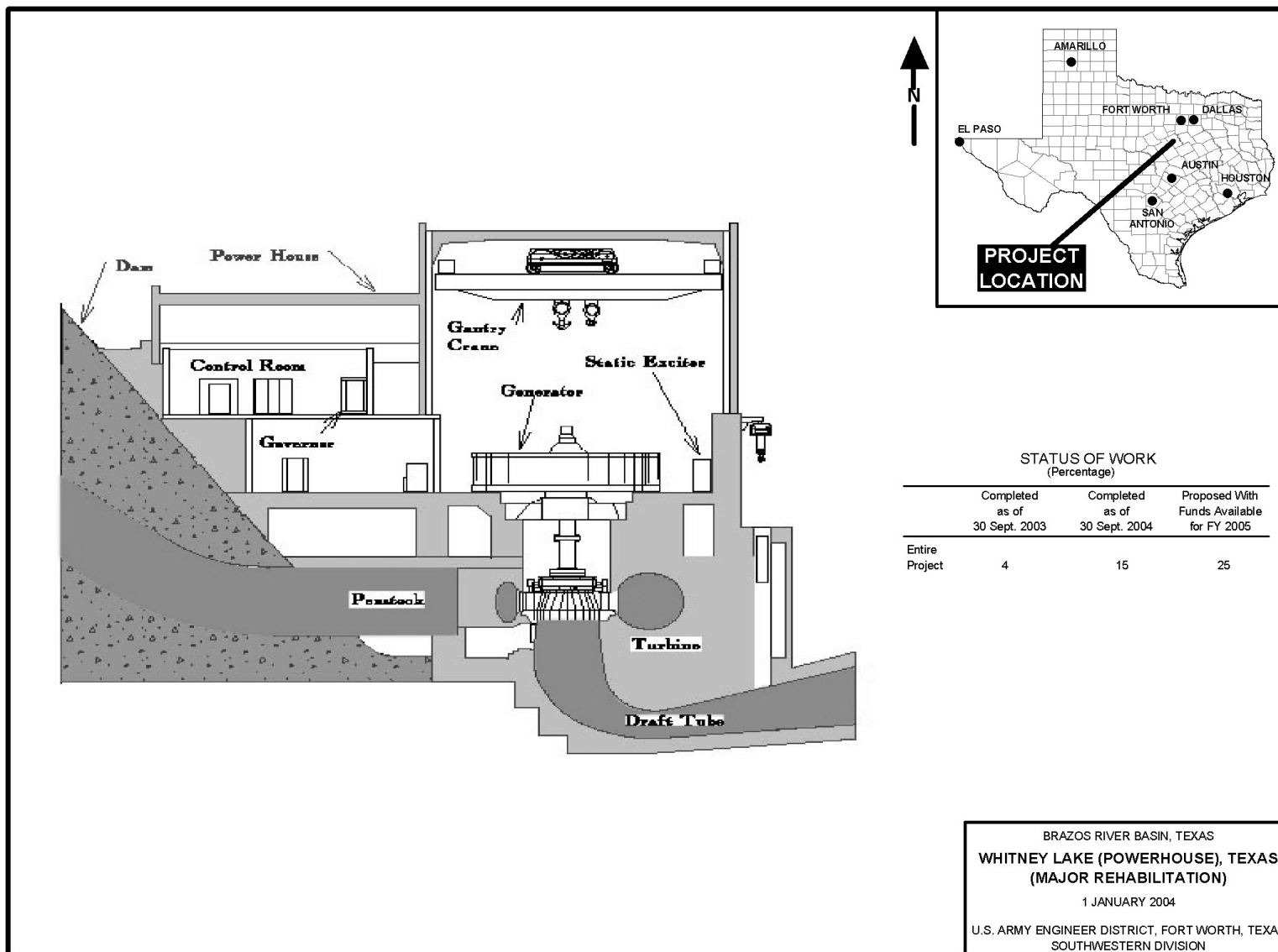
STATUS OF ENVIRONMENTAL IMPACT STATEMENT: An Environmental Assessment was conducted and a Finding of No Significant Impact was executed in March 2001.

OTHER INFORMATION: The Major Rehabilitation Report was approved in July 2001. Construction was initiated in Fiscal Year 2003.

Division: Southwestern

District: Fort Worth

Project: Whitney Lake (Powerhouse), Texas
(Major Rehabilitation)



Division: Southwestern

District: Fort Worth

Project: Whitney Lake (Powerhouse), Texas
(Major Rehabilitation)

2 February 2004

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**SOUTHWESTERN DIVISION
JUSTIFICATION OF ESTIMATE**

APPROPRIATION TITLE: Operation and Maintenance, General, Fiscal Year 2005

1. Navigation

a. Channels and Harbors

The budget estimate of \$68,426,000 provides for essential operation and maintenance work on the 13 channel and harbor projects named in the list which follows. The work to be accomplished under this activity consists of operating and maintaining the coastal navigation channels, harbors and anchorages by means of dredging, constructing bulkheads and spoil disposal areas, snagging, and repairing channel stabilization works, navigation structures, and harbor jetties, all as authorized in the laws pertaining to river and harbor projects. The requested amount includes facility security and an amount from the Inland Waterways Trust Fund equal to ¼ of the total costs of operation and maintenance of inland waterways having averaged more than 5 billion ton-miles of traffic per year for the past 5 years, and ½ of the total costs of operation and maintenance of all other inland waterways.

State Project Name	<u>ESTIMATED OBLIGATIONS (\$)</u>		<u>Reason for Change and Major Maintenance Items</u> (Threshold \$1,000,000)
	<u>FY 2004</u> <u>Total</u>	<u>FY 2005</u> <u>Total</u>	
Texas			
Barbour Terminal Ship Channel	659,000	0	Dredging completed in FY04.
Bayport Ship Channel	0	2,785,000	Dredge navigation channel.
Brazos Island Harbor	0	2,875,000	Dredge navigation channel.
Corpus Christi Ship Channel	6,650,000	7,945,000	Dredge navigation channel.
Freeport Harbor	4,500,000	6,320,000	Dredge navigation channel.
Galveston Harbor and Channel	4,676,000	8,551,000	Dredge navigation channel.
Gulf Intracoastal Waterway	21,329,000	15,527,000	Dredge navigation channel.

SOUTHWESTERN DIVISION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, Fiscal Year 2005

1. Navigation (Continued)

a. Channels and Harbors (Continued)

	<u>ESTIMATED OBLIGATIONS (\$)</u>		
<u>State</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>Reason for Change and Major Maintenance Items</u>
<u>Project Name</u>	<u>Total</u>	<u>Total</u>	<u>(Threshold \$1,000,000)</u>

Texas (Continued)

Houston Ship Channel	13,539,000	13,438,000	
Matagorda Ship Channel	4,690,000	0	Dredge navigation channel.
Sabine-Neches Waterway	8,849,000	10,985,000	Dredge navigation channel.
	=====	=====	
Total Channels and Harbors	64,892,000	68,426,000	

**SOUTHWESTERN DIVISION
JUSTIFICATION OF ESTIMATE**

APPROPRIATION TITLE: Operation and Maintenance, General, Fiscal Year 2005

1. Navigation (Continued)

b. Locks and Dams

The budget estimate of \$35,489,000 provides for essential operation and repairs on one system containing 13 locks and dams. Included are: facility security, labor, supplies, materials and parts for day-to-day functioning; and periodic dredging, maintenance, repairs, or replacements of channels and structures. The requested amount also includes application of Special Recreation Use Fees (SRUF) for recreation areas. The requested amount includes an amount from the Inland Waterways Trust Fund equal to ¼ of the total costs of operation and maintenance of inland waterways having averaged more than 5 billion ton-miles of traffic per year for the past 5 years, and ½ of the total costs of operation and maintenance of all other inland waterways.

<u>ESTIMATED OBLIGATIONS (\$)</u>			
	<u>FY 2004</u>	<u>FY 2005</u>	
<u>State</u>	<u>Total</u>	<u>Total</u>	<u>Reason for Change and Major Maintenance Items</u>
<u>Project Name</u>			(Threshold \$1,000,000)
<hr/>			
Arkansas and Oklahoma			
McClellan-Kerr Arkansas			
River Navigation System	29,493,000	35,489,000	Continue crack repair at David D. Terry Lock and Dam and rehabilitate and paint tainter gates at Lock and Dam 5.
 Total - Locks and Dams	 29,493,000	 35,489,000	
	=====	=====	
TOTAL - NAVIGATION	94,385,000	103,915,000	

**SOUTHWESTERN DIVISION
JUSTIFICATION OF ESTIMATE**

APPROPRIATION TITLE: Operation and Maintenance, General, Fiscal Year 2005

2. Flood Control

a. Reservoirs

The budget estimate of \$86,965,000 provides for the operation and ordinary maintenance of the 62 projects named in the list which follows, and the scheduling of reservoir flood control operations in the Southwestern Division. Included are: facility security, labor, supplies, materials and parts for day-to-day functioning. The requested amount also includes application of Special Recreation Use Fees (SRUF) for recreation areas.

	<u>ESTIMATED OBLIGATIONS (\$)</u>		
	FY 2004	FY 2005	
<u>State</u>	<u>Total</u>	<u>Total</u>	<u>Reason for Change and Major Maintenance Items</u>
Project Name			(Threshold \$1,000,000)
			Arkansas
Blue Mountain Lake	1,751,000	1,189,000	Reduction in the levels of services.
DeQueen Lake	1,567,000	1,001,000	Reduction in the levels of services.
Dierks Lake	1,131,000	1,030,000	
Gillham Lake	1,531,000	931,000	Reduction in the levels of services.
Millwood Lake	1,503,000	1,418,000	
Nimrod Lake	2,036,000	1,793,000	Reduction in levels of services.
			Kansas
Council Grove Lake	1,760,000	1,259,000	Restructuring in FY03 reduced operation costs.
El Dorado Lake	939,000	480,000	Restructuring in FY03 reduced operation costs.
Elk City Lake	650,000	389,000	Restructuring in FY03 reduced operation costs.

**SOUTHWESTERN DIVISION
JUSTIFICATION OF ESTIMATE**

APPROPRIATION TITLE: Operation and Maintenance, General, Fiscal Year 2005

2. Flood Control (Continued)

a. Reservoirs (Continued).

	<u>ESTIMATED OBLIGATIONS (\$)</u>		
	FY 2004	FY 2005	
<u>State</u>	<u>Total</u>	<u>Total</u>	<u>Reason for Change and Major Maintenance Items</u>
Project Name			(Threshold \$1,000,000)
Kansas (Continued)			
Fall River Lake	1,385,000	1,516,000	
John Redmond Dam and Reservoir	2,025,000	1,260,000	Restructuring in FY03 reduced operation costs.
Marion Lake	2,443,000	1,687,000	Restructuring in FY03 reduced operation costs.
Pearson-Skubitz Big Hill Lake	984,000	932,000	
Toronto Lake	464,000	389,000	
Missouri			
Clearwater Lake	1,959,000	1,974,000	
Oklahoma			
Arcadia Lake	715,000	280,000	Restructuring in FY03 reduced operation costs.

**SOUTHWESTERN DIVISION
JUSTIFICATION OF ESTIMATE**

APPROPRIATION TITLE: Operation and Maintenance, General, Fiscal Year 2005

2. Flood Control (Continued)

a. Reservoirs (Continued).

	<u>ESTIMATED OBLIGATIONS (\$)</u>		
	FY 2004	FY 2005	
<u>State</u>	<u>Total</u>	<u>Total</u>	<u>Reason for Change and Major Maintenance Items</u>
<u>Project Name</u>			(Threshold \$1,000,000)
Oklahoma (Continued)			
Birch Lake	482,000	459,000	
Candy Lake	20,000	20,000	
Canton Lake	2,302,000	3,111,000	Complete rehabilitation contract on gates.
Copan Lake	707,000	734,000	
Fort Supply Lake	846,000	733,000	
Great Salt Plains Lake	514,000	129,000	Restructuring in FY03 reduced operation costs.
Heyburn Lake	612,000	557,000	
Hugo Lake	1,638,000	2,997,000	Rehabilitate flood gates.
Hulah Lake	1,230,000	337,000	Repair Bridge in FY04.
Kaw Lake	2,016,000	1,835,000	
Oologah Lake	2,099,000	2,094,000	
Optima Lake	406,000	41,000	Budget amount decreased to more realistically reflect historical expenditures.

**SOUTHWESTERN DIVISION
JUSTIFICATION OF ESTIMATE**

APPROPRIATION TITLE: Operation and Maintenance, General, Fiscal Year 2005

2. Flood Control (Continued)

a. Reservoirs (Continued).

	<u>ESTIMATED OBLIGATIONS (\$)</u>		
<u>State</u>	<u>FY 2004</u>	<u>FY 2005</u>	
<u>Project Name</u>	<u>Total</u>	<u>Total</u>	<u>Reason for Change and Major Maintenance Items</u>
			(Threshold \$1,000,000)
Oklahoma (Continued)			
Pensacola Reservoir - Lake O' the Cherokees	35,000	18,000	Reduce oversight activities in FY05.
Pine Creek Lake	921,000	848,000	
Sardis Lake	1,096,000	604,000	Restructuring in FY03 reduced operation costs.
Skiatook Lake	1,353,000	1,196,000	
Waurika Lake	1,241,000	946,000	Restructuring in FY 03 reduced operation costs.
Wister Lake	948,000	1,885,000	Rehabilitate flood gates.
Texas			
Aquilla Lake	589,000	644,000	
Arkansas-Red River Basins Chloride Control (Area VIII)	1,262,000	1,185,000	
Bardwell Lake	1,598,000	1,621,000	

**SOUTHWESTERN DIVISION
JUSTIFICATION OF ESTIMATE**

APPROPRIATION TITLE: Operation and Maintenance, General, Fiscal Year 2005

2. Flood Control (Continued)

a. Reservoirs (Continued).

	<u>ESTIMATED OBLIGATIONS (\$)</u>		
<u>State</u>	<u>FY 2004</u>	<u>FY 2005</u>	
<u>Project Name</u>	<u>Total</u>	<u>Total</u>	<u>Reason for Change and Major Maintenance Items</u>
			(Threshold \$1,000,000)

Texas (Continued)

Belton Lake	3,299,000	2,712,000	
Benbrook Lake	2,038,000	2,481,000	
Buffalo Bayou and Tributaries	2,413,000	1,835,000	Security enhancements completed in FY04.
Canyon Lake	2,770,000	2,732,000	
Estelline Springs Experimental Project	3,000	5,000	
Ferrell's Bridge Dam - Lake O' the Pines	2,660,000	2,635,000	
Granger Dam and Lake	1,568,000	1,600,000	
Grapevine Lake	2,596,000	2,834,000	
Hords Creek Lake	1,223,000	1,276,000	
Jim Chapman Lake	1,141,000	1,283,000	

**SOUTHWESTERN DIVISION
JUSTIFICATION OF ESTIMATE**

APPROPRIATION TITLE: Operation and Maintenance, General, Fiscal Year 2005

2. Flood Control (Continued)

a. Reservoirs (Continued).

	<u>ESTIMATED OBLIGATIONS (\$)</u>		
	FY 2004	FY 2005	
<u>State</u>	<u>Total</u>	<u>Total</u>	<u>Reason for Change and Major Maintenance Items</u>
<u>Project Name</u>			(Threshold \$1,000,000)

Texas (Continued)

Joe Pool Lake	626,000	769,000	
Lake Kemp	487,000	158,000	Rehabilitate flood gates in FY04
Lavon Lake	3,312,000	2,580,000	Reduction in the levels of services.
Lewisville Dam	3,134,000	3,832,000	
Navarro Mills Lake	1,597,000	1,603,000	
North San Gabriel Dam and Lake Georgetown	1,711,000	1,724,000	
O. C. Fisher Dam and Lake	1,419,000	813,000	Reduction in the levels of services.
Pat Mayse Lake	794,000	724,000	
Proctor Lake	1,683,000	1,701,000	
Ray Roberts Lake	689,000	1,061,000	

**SOUTHWESTERN DIVISION
JUSTIFICATION OF ESTIMATE**

APPROPRIATION TITLE: Operation and Maintenance, General, Fiscal Year 2005

2. Flood Control (Continued)

a. Reservoirs (Continued).

	<u>ESTIMATED OBLIGATIONS (\$)</u>		
	FY 2004	FY 2005	
<u>State</u>	<u>Total</u>	<u>Total</u>	<u>Reason for Change and Major Maintenance Items</u>
Project Name			(Threshold \$1,000,000)
Texas (Continued)			
Somerville Lake	3,323,000	2,600,000	Reduction in the levels of services.
Stillhouse Hollow Dam	2,487,000	1,782,000	Reduction in the levels of services.
Texas Water Allocation Allocation	100,000	100,000	
Waco Lake	2,316,000	2,291,000	
Wallisville Lake	958,000	1,295,000	Increased operational costs due to completion of construction project.
Wright Patman Dam and Lake	3,404,000	2,672,000	Reduction in the levels of services.

**SOUTHWESTERN DIVISION
JUSTIFICATION OF ESTIMATE**

APPROPRIATION TITLE: Operation and Maintenance, General, Fiscal Year 2005

2. Flood Control (Continued)

a. Reservoirs.

Scheduling Reservoir Operations. The budget estimate of \$813,000 provides for preparation, review and updating of water control manuals, real-time data collection to monitor hydrologic conditions at 93 Corps reservoirs, locks and dams and multiple purpose projects; and for the issuance of gate regulation instructions as necessary at 14 additional non-Corps dam and reservoir projects at which the Corps is responsible for flood control or navigation.

ESTIMATED OBLIGATIONS (\$)

	<u>FY 2004</u>	<u>FY 2005</u>	<u>Reason for Change and Major Maintenance Items</u>
<u>State</u> Project Name	<u>Total</u>	<u>Total</u>	<u>(Threshold \$1,000,000)</u>

Scheduling Reservoir Operations (All operations accounts)

Kansas	129,000	68,000	
Oklahoma	387,000	616,000	
Texas	190,000	129,000	
 Total	 706,000	 813,000	
 Total - Reservoirs	 92,499,000	 85,433,000	

**SOUTHWESTERN DIVISION
JUSTIFICATION OF ESTIMATE**

APPROPRIATION TITLE: Operation and Maintenance, General, Fiscal Year 2005

2. Flood Control (Continued)

b. Channel improvement, inspection, and miscellaneous maintenance.

Inspection of Completed Works. The budget estimate of \$1,532,000 provides for inspections at flood control projects constructed by the Corps and operated and maintained by non-Federal interests. The inspections are conducted to determine the extent of compliance with legal standards and to advise local interests, as necessary, of corrective measures required to ensure that project structures and facilities will continue to safely provide flood protection benefits. These projects consist of features such as channels, levees, floodwalls, drainage structures and pumping plants.

ESTIMATED OBLIGATIONS (\$)

<u>State</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>Reason for Change and Major Maintenance Items</u>
<u>Project Name</u>	<u>Total</u>	<u>Total</u>	<u>(Threshold \$1,000,000)</u>

Inspection of Completed Works (All Operations Accounts)

Arkansas	(118,000)	(0)	
Kansas	(0)	(172,000)	
Missouri	(7,000)	(781,000)	
Oklahoma	(0)	(131,000)	
Texas	(140,000)	(448,000)	
 Total	 (265,000)	 (1,532,000)	

SOUTHWESTERN DIVISION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, Fiscal Year 2005

2. Flood Control (Continued)

b. Channel improvement, inspection, and miscellaneous maintenance.

	<u>ESTIMATED OBLIGATIONS (\$)</u>		
	FY 2004	FY 2005	
<u>State</u>	<u>Total</u>	<u>Total</u>	<u>Reason for Change and Major Maintenance Items</u>
<u>Project Name</u>			(Threshold \$1,000,000)
<hr/>			
Total Channel			
Improvements, Inspections,			
and Miscellaneous			
Maintenance	265,000	1,532,000	
	=====	=====	
TOTAL - FLOOD CONTROL	93,470,000	86,965,000	

**SOUTHWESTERN DIVISION
JUSTIFICATION OF ESTIMATE**

APPROPRIATION TITLE: Operation and Maintenance, General, Fiscal Year 2004

3. Multiple Purpose Power Projects

The budget estimate of \$83,736,000 provides for the operation and maintenance of 18 multiple purpose projects, including 4 navigation locks and dams, named in the list which follows. These projects have a current operational capacity of 1,726,200 kilowatts of hydroelectric power production. Annual requirements are for the operation and ordinary maintenance of project facilities, facility security, labor, supplies, materials, and parts required for the day-to-day functioning. The requested amount also includes application of Special Recreation Use Fees (SRUF) for recreation areas.

	<u>ESTIMATED OBLIGATIONS (\$)</u>		
	FY 2004	FY 2005	
<u>State</u>	<u>Total</u>	<u>Total</u>	<u>Reason for Change and Major Maintenance Items</u>
Project Name			(Threshold \$1,000,000)
			Arkansas
Beaver Lake	4,297,000	5,060,000	
Bull Shoals Lake	5,180,000	4,401,000	Reduction in the levels of services.
Dardanelle Lock and Dam	5,319,000	5,337,000	
Greers Ferry Lake	6,391,000	5,016,000	Reduction in the levels of services. Rehabilitate tainter gate strut arms and other spillway equipment.
Norfork Lake	3,471,000	3,152,000	Reduction in the levels of services.
Ozark-Jeta Taylor Lock and Dam	3,917,000	4,866,000	

**SOUTHWESTERN DIVISION
JUSTIFICATION OF ESTIMATE**

APPROPRIATION TITLE: Operation and Maintenance, General, Fiscal Year 2005

3. Multiple Purpose Power Projects (Continued)

	<u>ESTIMATED OBLIGATIONS (\$)</u>		
<u>State</u>	<u>FY 2004</u>	<u>FY 2005</u>	
<u>Project Name</u>	<u>Total</u>	<u>Total</u>	<u>Reason for Change and Major Maintenance Items</u>
			(Threshold \$1,000,000)
			Missouri
Table Rock Lake	5,722,000	5,972,000	
			Oklahoma
Broken Bow Lake	1,684,000	1,294,000	Restructuring in FY03 reduced operation costs.
Eufaula Lake	5,889,000	5,435,000	
Fort Gibson Lake	6,463,000	6,190,000	
Keystone Lake	6,834,000	4,233,000	Restructuring in FY03 reduced operation costs.
Robert S. Kerr Lock and Dam and Reservoir	4,275,000	4,734,000	
Tenkiller Ferry Lake	3,217,000	3,217,000	
Webbers Falls Lock and Dam	6,551,000	6,706,000	

**SOUTHWESTERN DIVISION
JUSTIFICATION OF ESTIMATE**

APPROPRIATION TITLE: Operation and Maintenance, General, Fiscal Year 2005

3. Multiple Purpose Power Projects (Continued)

	<u>ESTIMATED OBLIGATIONS (\$)</u>		
	FY 2004	FY 2005	
<u>State</u>	<u>Total</u>	<u>Total</u>	<u>Reason for Change and Major Maintenance Items</u>
<u>Project Name</u>			<u>(Threshold \$1,000,000)</u>
Texas			
Denison Dam - Lake Texoma	8,500,000	7,715,000	
Sam Rayburn Dam and Reservoir	5,618,000	4,291,000	Reduction in levels of service
Town Bluff Dam, B. A. Steinhagen Lake and Robert Douglas Willis Hydropower Project	1,946,000	1,801,000	
Whitney Lake	4,695,000	4,516,000	
	=====	=====	
TOTAL - MULTIPLE PURPOSE POWER PROJECTS	90,019,000	83,936,000	

**SOUTHWESTERN DIVISION
JUSTIFICATION OF ESTIMATE**

APPROPRIATION TITLE: Operation and Maintenance, General, Fiscal Year 2005

4. Protection of Navigation

Project Condition Surveys. The budget estimate of \$50,000 provides for hydrographic surveys, inspections, and studies to determine the condition of navigation channels that do not have any other maintenance work included in the budget request and disseminate the information to users of the projects. For the projects that do not require maintenance, surveys are performed at many of them in order to determine the degree of sedimentation so that users can be advised of channel conditions and future maintenance can be scheduled.

	<u>ESTIMATED OBLIGATIONS (\$)</u>		
	FY 2004	FY 2005	
<u>State</u>	<u>Total</u>	<u>Total</u>	<u>Reason for Change and Major Maintenance Items</u>
<u>Project Name</u>			(Threshold \$1,000,000)
Project Condition Surveys			
<u>Texas</u>	50,000	50,000	
TOTAL - PROTECTION OF NAVIGATION	<u>50,000</u>	<u>50,000</u>	
	=====	=====	
GRAND TOTAL - SOUTHWESTERN DIVISION	277,942,000	274,866,000	